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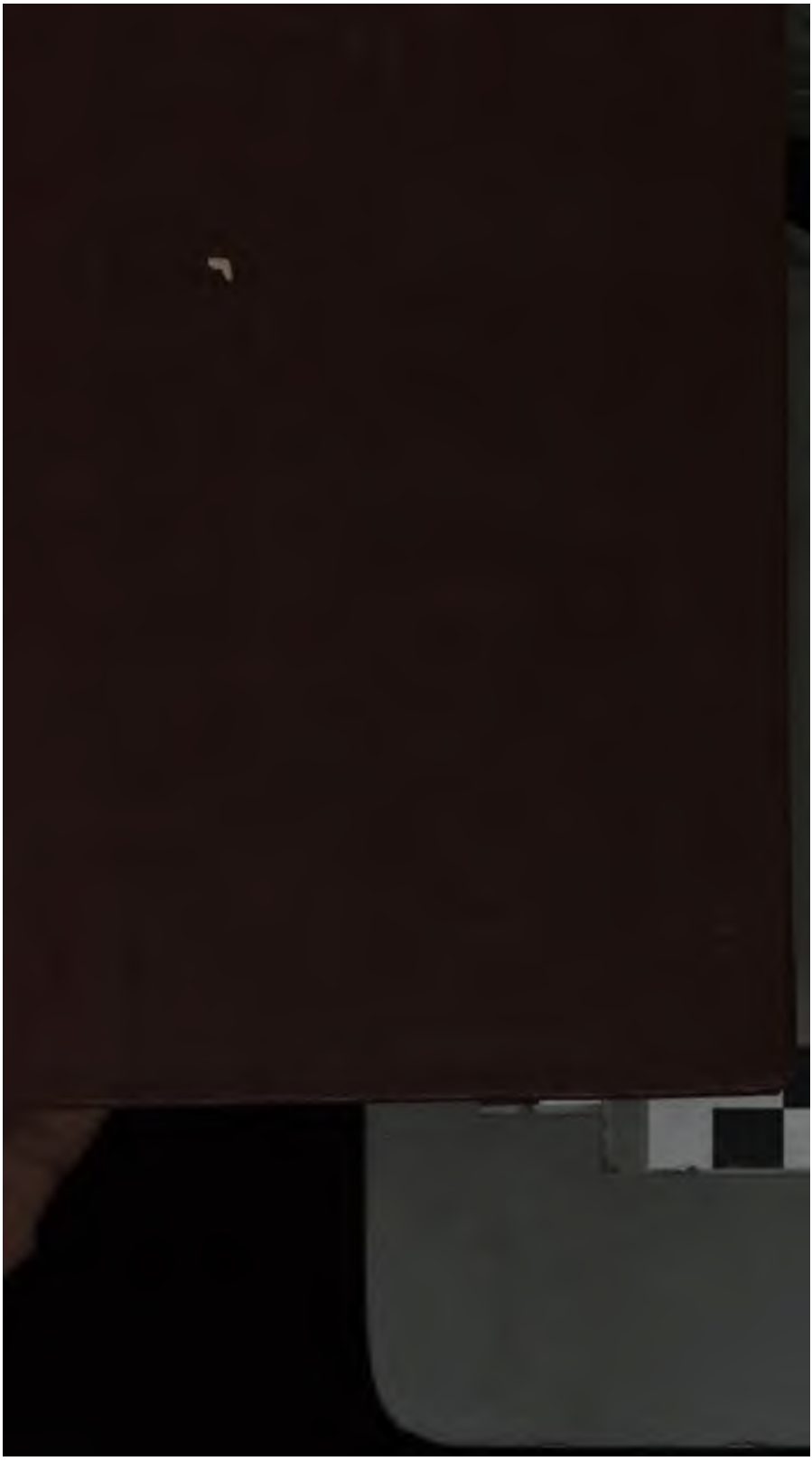

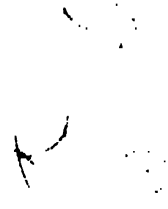

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METAPHYSICAL ESSAYS:

CONTAINING

THE PRINCIPLES

AND

FUNDAMENTAL OBJECTS

OF

THAT SCIENCE.

BY RICHARD KIRWAN, ESQ.
LL. D. P. R. I. A. F. R. S. &c. &c.

VOLUME I.

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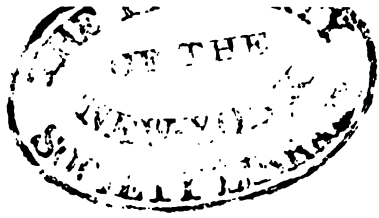

PREFACE.

UNDER the name of Metaphyſics are comprehended inquiries into the nature of objects impervious to the ſenſes; ſuch as that of the thinking principle within us, and the exiſtence and properties of the Author of the univerſe. Such inquiries have at all periods in which human ſocieties, by attaining a certain degree of civilization, afforded ſufficient leiſure, invited the notice of men of ſuperior underſtanding, though the remoteneſs of theſe objects from ſenſe rendered any determination concerning them not a little difficult. Hence diſagreeing opinions naturally aroſe, and various ſects were formed. The hiſtory and various fortunes of theſe I ſhall not ſtop to relate, as they may be found in ſeveral well-known treatiſes. It is ſufficient to obſerve here, that as each ſect maintained its

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peculiar tenets with great obſtinacy and ardour, Metaphyſics ſoon became the moſt contentious of all ſciences; whence it came to paſs, that though evidently it be the moſt important of all others, as it relates to man, not only in his preſent but in his future ſtate, announcing the truths it moſt concerns him to be acquainted with, yet preſenting, particularly in the latter ages, little elſe than the incoherent jargon of the ſchools, it ſtill, without attention to the numerous improvements it received during the courſe of the laſt century from the luminous reſearches of Locke, Berkeley, Merian, Condillac, and profeſſor Dugald Stuart, continues to be held by the vulgar herd of mankind, to be ſcarce any thing more than refined nonſenſe.

Upon a general ſurvey of the whole, it will be found, that many, and indeed the moſt futile queſtions and the moſt abſurd concluſions with which this ſcience was polluted and diſgraced, originated in the vague, obſcure,

ſcure, and ambiguous terms with which it abounded: theſe being partly baniſhed, and the ſignification of ſuch as it neceſſarily employs being duly explained, Metaphyſics aſſumed a new appearance; and being immediately freed from the vain unintelligible ſubtleties of the ſchools, it was enabled to unravel the more refined ſophiſtry by which ſome oblique wits attempted to impoſe atheiſm, pantheiſm, fataliſm, and materialiſm, and finally univerſal ſcepticiſm, on the credulity of mankind.

The importance of this ſcience is beſt diſcerned by taking a ſummary view of the evils reſulting from falſe notions of its objects; and among theſe objects I conſider ſettling the true import of words as one peculiarly deſerving the greateſt attention. Now ſo ſtrangely have theſe been miſunderſtood, that abſtract terms were ſuppoſed to have real correſponding archetypes. *Fortune* was thought to denote a goddeſs, *deſtiny* three goddeſſes; *ſpace*

has by ſome been held to be a real, ſelf-exiſtent being, by others a modification of the Supreme Being (though this Being was acknowledged to be ſpiritual and unextended;) and by others ſomething intermediate between matter and ſpirit. *Motion* was defined to be the *act* of a being tending from capacity to actuality. Others, ſtill more abſurd, have rejected definitions, even of the moſt complicated objects, altogether; thus rendering all reaſoning on controverted ſubjects abſolutely impoſſible.

With reſpect to the human ſoul, ſome have held it to be a portion of the Divine Being, others a bundle of fleeting perceptions without any percipient, and others a thinking machine.

But the errors into which mankind fell reſpecting the nature and attributes of the Divine Being were by far the moſt deſtructive of human happineſs, for, to ſay nothing of pantheiſts and Epicureans, moſt nations aſcribed to their divinities paſſions ſimilar to

their

their own, particularly the moſt malevolent, anger and revenge. And as Noah ſacrificed animals after the flood, by way of thankſgiving, for having been ſaved from it, his miſguided poſterity ſuppoſed ſacrifices to have an inherent power of appeaſing the anger of the Divinity, and ſo much the greater, as the victim ſacrificed was of greater value; thus the human ſpecies being deemed the moſt excellent, human ſacrifices were held to be the moſt efficacious: in conſequence of this fatal deluſion, all nations were guilty of this horrid impiety;* and by ſome it was carried to an exceſs ſcarcely credible. It is ſaid, that the Mexicans ſacrificed 2500 at leaſt, yearly.† Nor was the opinion, wantonly formed, of the exiſtence of evil ſpirits let looſe on mankind, much leſs pernicious; for on this the imaginary ſcience of magick was founded, by

* See Magee on Atonement, p. 90; and Bryant, who publiſhed an expreſs treatiſe on this ſubject.

† 3 Robinſon, 156. 314.

means

means of which it was ſuppoſed commun cation might be held with theſe ſpirits; ar to their agency, under the direction of adep in this ſcience, numerous diſorders we aſcribed. In conſequence of this perſuaſion, i exerciſe was held criminal; but the means detecting this criminality were as inſufficier as ridiculous; ſeveral treatiſes on this ſub ject are ſtill extant; its belief was received i all Chriſtian countries, and continued eve after the reformation: it is ſaid that 300 perſons ſuffered death as ſorcerers in Franc in one year. Many underwent the ſame fat in proteſtant Geneva, many in Germany an England, and ſeveral in New England.*

Thus we ſee that even the pureſt religio is unable to eradicate ſuperſtition; the ex perience of ages demonſtrates, that this ca be effected only by philoſophy.

In the following eſſays I have endeavoure to comprehend the moſt important truth

* See Cotton Mather's Hiſtory of New England.

containe

contained in this ſcience, with all poſſible conciſeneſs. My aim in the firſt is to point out the true ſignification of terms that moſt frequently occur in treating metaphyſical ſubjects, and explain the nature of objects indicated by ſome others. The nature of two of theſe was ſo far miſtaken, and appeared ſo intricate, that I have treated of them more at large in diſtinct diſſertations.

In the ſecond I have endeavoured to do away ſome falſe opinions reſpecting the human ſoul, and particularly its materiality; ſhewing, that no ſuch ſubſtance as matter is deſcribed to be, either exiſts or can exiſt. Of the unpopularity of this opinion I am well aware; however I am fully convinced of its truth; nay, that it is a moſt important truth; and were it even falſe, it can in no caſe be prejudicial to ſociety, as ſome of its opponents, who fancied they underſtood it, have ignorantly ſuppoſed. I have briefly ſtated the anſwers given by its great author to the objections

jections made to it in his time, and have obviated the moſt plauſible arguments by which it has of late been aſſailed. After which I ſuccinctly treat of ſenſations, ideas, conſciouſneſs, the powers and faculties of the human mind, and explain in what its various abilities and diſabilities conſiſt, or at leaſt the current notions annexed to the terms by which they are deſcribed.

The exiſtence of the Supreme Being and his attributes, as far as they are diſcoverable by human reaſon, form the ſubject of the third eſſay. Of the former I have given a new demonſtration *a priori*; and of the latter I have ventured to expoſe ſome opinions peculiar to myſelf, but by which many objections, otherwiſe inſoluble, are removed.

I have every where preferred the ſynthetic to the analytic method, as being moſt conſiſtent with brevity. The former has been ſucceſsfully treated by Locke, Condillac, and profeſſor Dugald Stuart.

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METAPHYSICKS.

METAPHYSICKS comprehend three objects of inquiry: firſt, The true ſignification of words uſed in treating of intellectual ſubjects; ſecondly, A true notion of the human mind, and of its principal phenomena; thirdly, Proper notions of the Supreme Being, and his moſt important attributes.

ESSAY I.

CHAPTER I.

PRELIMINARY DEFINITIONS OF TERMS THAT MOST FREQUENTLY OCCUR IN THIS TREATISE.

Senſation denotes whatever we perceive by our ſenſes.

Idea denotes a faint copy of a ſenſation abſent, but recollected.

Notion ſignifies the knowledge we have of objects, to which we aſſign a name, or denote

by any ſign, (ſuch as arithmetical figures, or algebraic characters); but of which, as they are not perceived by the ſenſes, no idea can be formed.

Thing is a word uſed, firſt, to ſignify whatever is not a *perſon*; or, ſecondly, any object whatſoever.

Notions are either ſimple, complex, complicative, ſignificative, or relative.

Simple notions are thoſe which we have of the characters, qualities, modes, properties, actions, or relations, ſingly conſidered, of any ſubject to which they belong, or of which they make a part; and hence they are ſaid to be *abſtracted*, and the knowledge we have of them is called an *abſtract notion.*

Such are the notions we have of the faculties, ſtates, or modifications of the human mind, or at leaſt of the ſignification of the words that denote them.

Such alſo is the knowledge we have of the ſignification of general words, or the things ſignified by them, whether thoſe words be generic or ſpecific; as animal and man, or numerals; though moſt commonly theſe words are underſtood not by a knowledge of their

abſtract

abſtract ſignification, but by obſerving to what ſorts of things they are uſually applied, or how formed; and hence their definition is often difficult.

Complex notions are thoſe which we have of real things which poſſeſs many properties, and of which we can have no idea; ſuch as *God*, to whom we aſcribe many properties, and the *human ſoul*, to which various properties and ſuſceptibilities belong.

Complicative notions are thoſe which we annex to various words, indicating numerous objects bundled up together, as bearing ſome general relation to each other; ſuch as numerous actions, or diſpoſitions to action, conſidered in their various circumſtances as objects of approbation, or diſapprobation; for inſtance, our notions of *virtue*, *vice*, *impropriety*, *indecency*, *right*, *wrong*, &c.

Or ſuch as we annex to words indicating the tranſactions that take place in the intercourſe of men with each other, as *negociations*, *bargains*, *treaties*, *war*, *peace*, &c.

Or to thoſe that mark the regulations of ſocieties, as *laws* and their *ſanctions*.

Or to words expreſſive of the combinations

of men for particular views, as *ſociety*, *government*, *parliament*, *conſpiracy*, &c.

Or of reciprocal relations, as ſovereign and ſubject, father and ſon, &c.

Or to words that denote a complication of different perceptions, ſtates, or ſentiments of the mind, that bear a relation to each other; ſuch as *deſire*, which indicates, firſt, the perception or notion of an agreeable object; ſecondly, an uneaſineſs to attain it; and, thirdly, an act of the will determining (if it be attainable) to attain it. So *hope* indicates deſire, accompanied with doubt, &c.

Significative notions are thoſe we have of the ſignification of words that denote other words; as nouns, pronouns, &c. or of ſigns which denote words, or various particulars concerning them; as grammatical ſigns, or of arithmetical ſigns, which denote the gradation of numbers; or of algebraic ſigns, which denote numeral relations and operations.

Relative notions are thoſe which we have of things not directly known, but ſolely by relation to ſomething elſe: ſo, though we may not exactly know the ſquare roots of

400 and 441, without extracting them, yet we know ſo much of both, by reaſon of the relations they bear to thoſe numbers, that the root of the latter muſt be higher than that of the former.

Thus we ſee that *ſimple* notions are founded on abſtraction, *complex* notions are derived from ratiocination, *complicative* from concurring relations, and *ſignificative* on the convenience of diſtinction or notation.

Complicative notions are not eaſily defined, though eaſily underſtood in particular caſes; becauſe a definition muſt ſet forth the character common to them in all caſes, which is not eaſily aſſigned, whereas, their ſenſe in particular caſes is eaſily underſtood; thus *time*, *place*, *ſpace*, &c. are not eaſily defined, but the *ſpace of a mile*; *in the place where Babylon ſtood*; *in an hour's time*, and ſuch like phraſes, are eaſily underſtood.

CHAPTER II.

SECT. I.

OF BEING, EXISTENCE, ESSENCE, POSSIBILITY.

1. *Being* is either a participle of the verb *to be*, or a ſubſtantive, and then it denotes any thing real and poſitive, actually exiſting, or capable of exiſtence; but in this laſt caſe, the word poſſible is annexed to it, unleſs the ſenſe requires that it ſhould be ſo underſtood without this addition.

2. *Exiſtence* denotes the actual poſſeſſion of any properties; a being that poſſeſſes no properties is a mere *nothing*, and whatever poſſeſſes a property exiſts.

3. *Eſſence* denotes that conſtitution that makes or determines a thing to be what it is, or that aſſemblage of properties which diſtinguiſhes it from all other beings, and entitles it to a diſtinct name.

4. Thus it denotes one or other of two things, namely, a peculiar conſtitution, or a peculiar aſſemblage of properties. The peculiar conſtitution is called the *real eſſence*, but

as

as this is for the moſt part unknown, the aſſemblage of peculiar and inſeparable properties is ſubſtituted in its ſtead, as it equally anſwers every purpoſe of deſignation and diſcrimination, and is called the *nominal* eſſence.

5. Thus the real eſſence of water conſiſts in the union of certain proportions of oxygen and hydrogen; but its nominal eſſence conſiſts in the aggregate of all its properties.

6. The eſſence of complicative notions conſiſts in thoſe characters that form their peculiar diſtinction, and are therefore marked by diſtinct names; thus homicide, committed through malice, is diſtinguiſhed from that committed through ſudden paſſion: the firſt is called *murder*, and the other *manſlaughter*, and thoſe diſtinct characters form their eſſence. As theſe notions are combinations formed by men themſelves, their real and nominal eſſence is the ſame.—Locke, B. iii. C. v. ſec. 14.

7. *Poſſibility* denotes the compatibility of the conſtituent principles of any thing with each other, or of the properties, modifications, or attributes of a thing with each other, and with that thing to which they

belong, or are attributed; and alſo the exiſtence of a cauſe able to produce the thing. which is ſaid to be poſſible. Poſſibility is an attribute or denomination, and not a property.

8. Hence poſſibility expreſſes two notions: firſt, the compatibility of the principles, properties, &c. and this is called the internal, intrinſic, metaphyſical, abſolute, and abſtract poſſibility, as it is conſidered abſtractedly from the cauſe or cauſes of its production; and, ſecondly, the exiſtence of a cauſe enabled to produce it. The ſecond notion is called the extrinſic poſſibility. We may remark, that principles, properties, attributes, &c. are judged to be compatible when their incompatibility is not diſcerned. Thus a circle is deemed to be poſſible, independently of any experience, becauſe no incompatibility can be diſcovered betwixt a curved line encloſing a ſpace, and ſenſible equidiſtance of all its parts from a given point within that ſpace.

9. The ſecond notion relates to the power of a productive cauſe; and a thing is ſaid to be *impoſſible*, firſt, when it can be effected either

either by no power whatſoever, or, ſecondly, when it is inconſiſtent with the experienced laws of phyſical nature; and, thirdly, when its exiſtence is obſtructed by powerful moral cauſes. Thus three kinds of poſſibility and impoſſibility are diſtinguiſhed—the metaphyſical, the phyſical, and the moral.

10. Firſt, a thing is ſaid to be *metaphyſically poſſible*, when it is ſuch as may be produced or created by the Supreme Being, to whom all things are poſſible which do not involve a contradiction either in themſelves, or to his attributes. Whatever implies a contradiction to either is *metaphyſically impoſſible*. Thus a *ſquare circle* implying a contradiction, cannot be formed even by Omnipotence. So God cannot create a being with a deſign of rendering him permanently miſerable, ſuch a deſign being inconſiſtent with his infinite goodneſs.

11. Secondly, an event is *phyſically poſſible*, when its exiſtence is not inconſiſtent with the known laws of phyſical nature in the *given circumſtances*, though perhaps proceeding from unknown laws. The moſt general laws of nature are not abſolutely general, for they do not

not extend to all bodies whatſoever, whether organic or inorganic. Thus iron will aſcend to a magnet, though ſuch aſcent will be contrary to the laws of nature when other bodies are held under it. Thus bodies electrified attract many other light bodies. Thus the heads of polypi are reproducible, &c. though thoſe of moſt other animals are not, &c. &c. And ſo we find exceptions in particular caſes to moſt of the previouſly known laws of nature.

12. But an event is *phyſically impoſſible* when its exiſtence in *given circumſtances* is inconſiſtent with thoſe reſults which uniform and univerſal experience has taught us to expect in ſimilar circumſtances, though poſſible in certain other different circumſtances. Thus ſuch experience teaches us, that pure water will not boil at the temperature of 100 degrees, though *in vacuo* it will boil at much inferior degrees; this circumſtance being different from that which uſually occurs, namely, the preſſure of the ſuperincumbent atmoſphere.

13. An event is ſaid to be *morally* poſſible when its exiſtence is not inconſiſtent with thoſe

thoſe motives of action by which mankind are generally governed, and not oppoſed by cauſes of equal or ſuperior efficacy.

14. And an event is *morally impoſſible* when, though its exiſtence be phyſically poſſible, yet by reaſon of its oppoſition to the opinions, habits, manners, inſtincts, prejudices, knowledge, or ignorance, or political ſtate of mankind, it *ſeldom* or never happens.

15. Hence *moral poſſibility* and *impoſſibility* are capable of degrees, but metaphyſical poſſibility and impoſſibility are not.

16. Phyſical poſſibility is alſo capable of degrees, for an effect may be produced with more or leſs difficulty.

17. But phyſical impoſſibility is incapable of any degrees, ſince the fact that involves it is inconſiſtent with all the laws of phyſical nature. Hence all miracles are equal, each equally requiring the intervention of ſupernatural power, to which the production of any ſuch fact is equally eaſy.

18. The poſſibility of *phyſical or moral facts* is ſo much the ſmaller, as the cauſes that oppoſe their exiſtence are more powerful or numerous, and *vice verſa*.

19. Where

19. Where many events are *apparently* equally poſſible, and one of them muſt take place, the previous aſſignment of any one of them renders it leſs poſſible than any other unaſſigned event; for the exiſtence of the aſſigned event involves alſo the relation of conformity to the aſſignment, which aſſignment is a fact quite foreign to it; conſequently, it requires the exiſtence of two poſſibilities, namely, that of the event abſtractedly or mathematically conſidered, and that of conformity with the aſſignment; whereas, the unaſſigned poſſible events are ſingle and unſhackled by any relation foreign to them.

20. Hence, the more numerous the unaſſigned poſſible events are, the nearer the aſſigned event approaches to a phyſical impoſſibility.

21. Thus the turning up of any of the ſix faces of a die, being *ſuppoſed* equally poſſible with the turning up of any other of thoſe faces, and on caſting the die, one of them muſt be turned up; if I name one of them, as that which muſt be turned up, it becomes leſs poſſible than the turning up of any other.

22. So

22. So alſo, and for the ſame reaſon, poſſibilities that involve the relations of *order* or *ſimilarity*, are leſs poſſible than any other, and in proportion as thoſe relations are more numerous. Thus the poſſibility of throwing an ace on one die, a duce on another, and a tray on a third, is ſmaller than the poſſibility of irregular appearances.

23. So the poſſibility of throwing three aces together with three dice, or three aces ſucceſſively on the ſame die, is ſmaller than the poſſibility of throwing two aces, &c.

24. Yet I have ſaid, *when the poſſibilities are apparently equal*, which equality in reality is never found, for the phyſical cauſes that produce any event are incapable of producing any other than that which takes place; but as theſe cauſes are unknown, every event that can by the laws of motion be produced, is judged as poſſible as any other: theſe poſſibilities depending on unknown cauſes, are called *chances*. All poſſibilities are eternal, and neceſſary in this ſenſe,—that they are eternally known to the Divine Mind, and neceſſarily ſuch as they are known to be.

SECT.

SECT. II.

OF SUBSTANCE, NATURE, SUBSISTENCE, AND PERSONALITY.

25. *Subſtance* in the metaphyſical ſenſe denotes the ſubject of various ſtates, attributes, powers, or modifications, its eſſence or identity remaining the ſame, and to which various properties belong or are aſcribed, though its *eſſence* be abſolutely unknown. It is a being eſſentially perceptive.

26. The knowledge we have of it is derived from our conſciouſneſs that our mind, ſoul, or thinking principle, is one and the ſame when we feel pleaſure and when we feel pain; when we grieve and when we rejoice; when we ſee and when we do not ſee; when we deſire, will, or reſolve; and when we judge, &c. The ſubject of theſe different ſtates of our mind, whether active or paſſive, we call its *ſubſtance.*

27. The *exiſtence* of only three ſorts of ſubſtances is known to us; that of our own minds by conſciouſneſs, that of other men by analogy, that of God by ratiocination and analogy, and that of angels by revelation.

The

The exiſtence of that ſubſtance, which is uſually aſcribed to the fictitious external objects of our ſenſations, is not only deſtitute of any ſolid proof, but abſolutely impoſſible, as will hereafter be proved; but, in a phyſical ſenſe, that is, in common language, certain aggregates of ſenſations, or ſenſible qualities comprehended under the ſame name, are called ſubſtances.

28. The various ſignifications of the word *nature* I have explained in my Eſſay on Logic, Part. ii. Chap. v. ſec. 4.

29. *To ſubſiſt*, in the Engliſh common language, and *ſubſiſter* in the French, ſignifies to remain, or ſtill continue to exiſt. And *ſubſiſtence* in both languages ſignifies the nouriſhment neceſſary to ſupport animal life.

Subſiſtere in claſſical Latin ſignifies to abide, to ſtand ſtill, to withſtand; and *metaphorically* to bear, or ſupport. Thus Cicero ſays, he could not *ſubſiſtere ſumptui*,* he could not bear or ſupport the expenſe. *Subſiſtentia* is a word unknown to the claſſic writers.

30. In theological language, *ſubſiſtence* has a very different ſignification; if in truth it

* See Fabre, Theſaurus Linguæ Latinæ. *Siſto.*

can

can be ſaid to have any at all: but to underſtand any part of this meaning, we muſt explain what theologians mean by the word *nature*.

31. *Nature*, φυσις, in the metaphyſical ſenſe, denotes the ſubſtance, ουσια, or eſſence of any thing, abſtractedly conſidered.*

32. *Subſiſtence* then, in the theological ſenſe, denotes that by which a nature or ſubſtance is terminated, and completed; in which nature ſtops and proceeds no further; as figure terminates and circumſcribes a body.†

33. Now this definition is evidently unintelligible; for nature or ſubſtance, abſtractedly conſidered, are incapable of termination; not only becauſe ſuch termination is unintelligible, but becauſe ſuch abſtractions exiſt only in the mind.

34. And let it be not pretended, that ſuch a termination may nevertheleſs exiſt, though unintelligible; as eſſences, though unknown, nevertheleſs exiſt; for the exiſtence of eſſences is known by their effects, whereas the exiſtence of ſubſiſtences is fictitious. Hence Du-

* Petav. Dog. Theolog. Vol. III. 62.

† Du Hamel, Philoſoph. aduſum Ducis Burgundia, p. 294. 297.

hamel

-hamel owns that the diſtinction of ſubſiſtence from ſubſtance is only known to us through the myſteries of the Trinity and incarnation; that is, *ignotum per ignotius*. Tournely alſo allows the different ſignifications of ſubſiſtence to be theological fictions, * and ſcarcely intelligible.†

35. Neither does the compariſon with figure ſerve to illuſtrate this definition, for every thing corporeal muſt have a termination, otherwiſe its extenſion would in every ſenſe be infinite, which is confeſſedly impoſſible; but abſtractions, and ſpiritual ſubſtances, are incapable of any intelligible termination.

36. Senſible of the inſufficiency of this definition, the ſcholaſticks deviſed another: they ſay, that ſubſiſtence denotes the totality of a thing, abſtracting from the thing of which it forms the *whole*, in oppoſition to a part, which ſubſiſts or is ſupported, only by that whole, of which it is a part; thus they ſay the finger, head, foot, or any other limb of the body, ſubſiſts, and is in ſome meaſure ſupported by the body of which it is a part; and thus they ſay the ſoul of a

* De Trinitate, p. 51. † Ibid. p. 514.

man, ſingly taken, does not ſubſiſt, becauſe it is only a part of a man, and not the whole man.*

37. This definition is only a modification of the firſt, and equally unintelligible; for to diſtinguiſh the *totality* of a thing, from the *whole* of a thing, is a vain attempt to abſtract where there can be no abſtraction; for who can abſtract the totality of a thing from the whole of a thing? And, ſince it cannot be abſtracted, how can it be oppoſed to a part, or to any thing whatſoever? In one of the examples, *ſubſiſt* is uſed as ſynonimous to exiſt; in the other, it either contradicts this ſenſe, or has no meaning: thus when it is ſaid that the finger, or other limb, ſubſiſts in the body, the meaning is, that it exiſts in or forms a part of the body, and is ſo far ſupported by it, as it is connected with it; but when it is ſaid, that the ſoul of a man, ſingly taken, does not *ſubſiſt*, this means either that it does not exiſt, or elſe it means nothing intelligible.

38. The ſignification of ſubſiſtence being ſo obſcure, it is not ſurpriſing, that theologians and the metaphyſicians, who admit it, ſhould

* Du Hamel, p. 294. 297. Segui Metaph. 79. Tournely de Trinitate, 515.

diſ-

diſagree in explaining what ſort of thing it is; nor is an account of their opinions idle or ſuperfluous, as upon ſome or other of them; doctrines of great importance have been founded, for denying of which, thouſands have been deprived of their lives or properties: though theſe opinions are ſo glaringly abſurd, that barely to ſtate them is ſufficient to refute them.

39. Firſt, then ſome aſſert, that ſubſiſtence is the mere negation or abſence of union with any other ſubſtance; if ſo, it is merely nothing, and requires no particular name, for every one ſufficiently underſtands that things that are not united, are not united, and negations exiſt only in the mind.

40. Secondly, others will have ſubſiſtence to be a particular mode, or entity, rendering one ſubſtance naturally incommunicable to another ſubſtance. Such entities are evidently unintelligible and fictitious.

41. *Perſon*, in the common Engliſh language, is taken either abſolutely or relatively.

42. When taken abſolutely, it denotes, as Mr. Locke obſerves, "a thinking intelligent

being that has reaſon and reflection, and can conſider itſelf, as itſelf, in different times and places."* Thus a perſon may be the ſame ſubſtance but not the ſame perſon: thus a child juſt born cannot be called a perſon, at leaſt not the ſame perſon as when of the age of ten years, though he is the ſame ſubſtance at both periods; hence, brute animals are not perſons; nor is a madman while mad, nor an ideot, nor a drunken man while drunk.

43. When taken relatively, it denotes alſo an intelligent agent, conſidered in different relations or characters, whether real or fictitious.

44. *Real,* as when we ſay, that the ſame man may be conſidered as a different perſon in private life, from what he is in a public ſtation; thus he may be a good judge but a bad huſband. Thus Sir Walter Rawleigh, in his preface to the Hiſtory of the World, towards the end, ſays, that "ſome perſons, by "reaſon of their ſubjection to their private "paſſions, may ſeem different perſons in one and the ſame day."

45. *Fictitious,* as when an actor aſſumes and

* Book. ii. Chap. xxvii. ſec. 9.

repreſents

repreſents the perſon of another, whom he is therefore ſaid to perſonate.

46. In the claſſic Latin and Greek languages, the word perſon ſeems not to have the abſolute ſenſe it has in modern languages, but rather the relative, referring to the office, condition, appearance, or character, whether real or aſſumed. Thus Cicero ſays, "Suſtineo "unus tres perſonas, meam, adverſarii, judicis". And "partes lenitatis ſemper egi libenter, "ſeveritatis perſonam non appetivi, ſed a re- "publica impoſitam ſuſtinui." And "ad eam "rationem Satis aptam eſſe exiſtimabam "naturam et perſonam meam." So Livy ſays "alienam ferre perſonam." And Corn. Nepos "non dubito fore qui hoc genus ſcri- "bendi non ſatis dignum ſummorum vi- "rorum perſonis judicent."

So in the Greek, Προσωπον denotes only *face*, or external *appearance*, even in the New Teſtament.

Dr. Doddridge diſtinguiſhes three ſenſes of the word perſon:* "The word perſon (he "ſays) commonly ſignifies one ſingle intel- "ligent voluntary agent, or conſcious being;

* Lectures, Part vii. p. 169.

" and this we call the *philoſophical* ſenſe of the " word; but, in a *political* ſenſe, it may " expreſs the different relations ſupported by " the ſame philoſophical perſon, v. gr. the " ſame man may be father, ſon, huſband, " &c.; and the ſame prince King of Great " Britain, duke of Brunſwick, and treaſurer " of the empire, &c."

He adds, " beſides this, ſome have given " various definitions of *perſon* in the *theological* " ſenſe, of which few are more remarkable " than that of Marcus, that perſonality is a " poſitive mode of being, ultimately ter- " minating and filling a ſubſtantial nature, " and giving to it incommunicability." But Marcus is not ſingular; he agrees with thoſe metaphyſicians who aſſert ſubſiſtence to be a mode; and in fact it is the ſame thing as ſubſiſtence, as already ſeen.

47. The notion moſt generally received, however, agrees with that of Locke; Boetius defines it, " nature rationalis individua ſub- ſtantia;" with whom Aquinas agrees; and Tournely de Trinitate, 513; and many others, whom it is needleſs to quote. Their notion

of

of perſonality I ſhall paſs over, as in general it is the ſame as their notion of ſubſiſtence.

48. The beſt definition of perſonality is that of Dr. Paley, in his Natural Theology, chap. 23. p. 439: "the capacities of con-"triving, deſigning, and reaſoning, conſtitute "perſonality, for they imply conſciouſneſs "and thought." I have added *reaſoning*, elſe brute animals might be called perſons; many allow them thought, but no one calls them *perſons*.

SECT. III.

OF MODE, PROPERTY, QUALITY, ACCIDENT.

49. *Mode* is that ſtate, whether of body or mind, which may be acquired or changed without loſs of the identity of either; to *modify* is to induce ſuch a change.

50. The *modes of a body*, are either internal or external; both, are the body itſelf ſtanding in particular relations. The internal (ſo Locke, B. ii. C. 13, ſec. 5,) conſiſt in the relation of the parts of a body to each other, either with reſpect to ſituation, mobility, motion, or quiet. Such are figure, ſolidity,

liquidity, volatility, fluidity, rarefaction, and condenſation.

51. The external are the relations of a body to other bodies, ſuch as motion or quiet.

52. *The modes of mind* are the mind itſelf, either *acting*, as when it judges or wills, or is *acted upon*, and therefore paſſive, as in its ſenſations and other perceptions.

53. As no mode can exiſt without a being, of which it is a mode, ſo no being can exiſt without a mode: hence modes cannot be called beings, but modes or ſtates of beings; thus, pain cannot be conſidered abſtractedly from the being that ſuffers it; bodies muſt have ſome figure, and the mind ſome perception.

54. *Property* denotes ſomething belonging to a ſubſtance or mode, or derived from its nature and conſtitution; thus language is a property of the human ſpecies, and to contain moſt ſpace under the ſmalleſt ſurface, is the property of a circle.

55. All properties are either *powers*, or *ſuſceptibilities*; theſe are frequently called powers, or paſſive powers, and the former active.

56. Firſt, *powers:* thus it is a property of acids to redden certain vegetable blues, of animals to breath, &c. Secondly, *ſuſceptibilities:* thus it is a property of iron to be attracted by a magnet, or to receive the magnetic power.

57. Properties are alſo either *eſſential* or *contingent.*

58. Eſſential, as thoſe that contribute to form the nominal eſſence, when they are ſingly conſidered. Thus *attractibility by the magnet* is an eſſential property of iron, it being one of thoſe properties that enter into the definition of that metal, and which form its nominal eſſence. So *eternity* is eſſential to the Divine Being, flowing from the neceſſity of his exiſtence. So truth or falſehood are eſſential properties, or qualities, of an affirmative propoſition.

59. Again, eſſential properties are either *univerſal, generic, ſpecific,* or *individual. Univerſal,* are thoſe which are found in all bodies, as *gravitation,* except perhaps caloric, or light. *Generic,* as thoſe which are found in all animals. *Specific,* as thoſe which are found only in one ſpecies of animals. *Individual,*

as

as thoſe by which one individual is diſtinguiſhed from another of the ſame ſpecies.

60. *Contingent*, as when a ſuſceptibility is reduced to actuality; thus ſuſceptibility of ſcience is a property eſſential to man, but the *actual* acquiſition of any ſcience, is a property merely contingent; thus the various mental modes are contingent, as the perceptions of pleaſure or pain, joy or grief; as the mind has the ſuſceptibility of either; but perception of ſome kind is eſſential to it, as a figure of ſome kind to bodies.

61. The ſcholaſtic diſtinction of properties ſhould not be entirely overlooked; relatively to a ſpecies, ſcholaſtics diſtinguiſh four ſorts.

Firſt, properties *that belong to a whole ſpecies, but not to that ſpecies alone:* thus, to have two eyes, is a property of the human ſpecies, but not of the human ſpecies ſingly; for many other ſpecies of animals have alſo two eyes: theſe I have called generic properties, ſome however are not generic; thus to have two legs is a property of the human ſpecies, but not of the human ſpecies alone, for it belongs alſo to birds.

Secondly, properties that are found only in one ſpecies, but not in all the individuals of

of that ſpecies; as a genius, or diſpoſition, for poetry, or muſical compoſition, &c.

Thirdly, properties that are found in a whole ſpecies; and ſolely in that ſpecies, but not always; thus to reaſon is a property of the human ſpecies, and of the human ſpecies ſingly; yet men cannot reaſon when aſleep, intoxicated, delirious, or in a violent paſſion, &c.

Fourthly, properties that belong to a ſingle ſpecies only, and at all times; as the power of ſpeech, which belongs to the human ſpecies only, and can ſpeak even when aſleep.

62. *Qualities*, as they are differently applied, denote either ſenſations or relations; for they are *phyſical*, *intellectual*, or *moral*.

63. By phyſical qualities, Mr. Locke, (B. ii. C. viii. ſec. 7. 8, 9, and 10.) underſtands, powers which certain bodies have (as he ſays) of exciting perceptions: theſe he diſtinguiſhes into primary and ſecondary qualities; the primary are extenſion, ſolidity, mobility, and figure; the ſecondary are colours, ſounds, taſtes, and ſmells; but in fact theſe qualities are mere ſenſations: the tactile, are not the qualities of any thing, but form and conſtitute bodies:

bodies: the viſual, audible, ſapid and odorous, form the ſecondary qualities, which are properly qualities, as they denote and accompany the former, but do not conſtitute them, as will be ſhewn in the ſequel. Secondary qualities, are thoſe that are referred to tangible ſenſations, as colour, &c. Primary are thoſe which are referred to no other; as the tangible ſenſations of extenſion and ſolidity.

64. *Intellectual* qualities denote the various degrees in which intellectual powers are poſſeſſed, as ſagacity, penetration, comprehenſion, diſcernment, &c.

65. *Moral* qualities denote the relations which certain objects or actions have to our moral inſtincts, happineſs, or miſery.

66. *Accident* denotes, firſt, any thing ſuperadded or happening to a body or ſubſtance, and which has no neceſſary connection with it; thus ſilver is accidental to a lead ore, or antimony to a ſilver ore; as lead or ſilver ores may well exiſt without ſuch ingredients.

67. Secondly, an unforeſeen event is ſaid to be *accidental*. It differs from *chance*; as this denotes the happening of an event, where another

another or many more are ſuppoſed equally probable. Thus the birth of a male child is ſaid to happen by chance, becauſe the birth of a female is ſuppoſed to be equally probable, or nearly ſo; but theſe terms are frequently confounded.

SECT. IV.

DIFFERENCE, DISTINCTION, PRIVATION, OPPOSITION.

68. *Difference:* thoſe things are ſaid to differ from each other, which exhibit any thing, either abſolute or relative, which the other does not. Hence difference conſiſts in the preſence or abſence of one or more properties, modes, qualities, relations, or accidents, which are found in one of the objects compared, and not in the others. Difference then implies the abſence of ſimilitude in all reſpects, or in ſome one reſpect: thus a metallic globe, and an ivory globe of the ſame dimenſions, are ſimilar in reſpect to their ſhape, but different in every other reſpect.

69. Differences are therefore either eſſential or noneſſential. Eſſential differences are either tranſcendent, as that betwixt the Divine

vine ſubſtance and any created ſubſtance; or *generic*, as the differences of created ſubſtances of different *kinds*; or *ſpecific*, as the differences that diſcriminate different ſpecies of the ſame genus; or *noneſſential*, ſuch as the differences of modes, properties, qualities, or accidents, of individuals of the ſame ſpecies: for the modes, properties, or qualities, of different ſpecies differ eſſentially, unleſs abſtractedly conſidered, and ſimilar to each other, as a circle of iron, or of ſtone, or of wood.

70. *Diſtinction:* thoſe things are ſaid to be diſtinct whereof one is not preciſely what the other is. Diſtinction then denotes the abſence of exact identity: it muſt not then be confounded with difference; for two globes, or pieces of coin of the ſame metal, may be entirely ſimilar, and conſequently not differ in any reſpect from each other; but they are perfectly diſtinct, ſince they are two, and not one. Difference is oppoſed to ſimilarity, diſtinction to ſameneſs.

71. Diſtinctions are either real, modal, or mental.

72. *Real*, as the diſtinction between two or more ſubſtances; as the ſoul of one man from

from that of another man, or of angelic beings; or the modes, properties, or qualities, of diſtinct ſubſtances: thus the thoughts of one man, even when perfectly ſimilar, are really diſtinct from thoſe of another man.

73. *Modal:* thus the various ſenſations, ideas, volitions, &c. of the ſame mind, are not only diſtinct, but frequently very different; for inſtance, the ſenſations of pleaſure and thoſe of pain, or of pleaſures of different ſorts, or of pains of different ſorts or degrees. Some have called the diſtinction of pleaſing and painful ſenſations real, and juſtly, if they mean by *really* diſtinct, that they are *truly* diſtinct and different, and independently of the mind, but not in the ſenſe in which the word real is uſually taken; for ſurely they are not as diſtinct from each other as one man is from another, for they are merely diſtinct or different ſtates of the mind. The diſtinction betwixt the mind and its modes is alſo merely modal; for mode implies a mind of which it is a mode, but mind does not imply any particular mode.

74. *Mental,* as that which exiſts between the powers or properties of the ſame mind. Thus

Thus the power of judging is diſtinguiſhed from the power of willing; the ſuſceptibility of ſenſations is diſtinct from that of receiving ideas, or emotions, or moral impreſſions, &c. It is plain theſe powers are not *really* diſtinct from each other, nor from the ſubſtance of the mind; for they are the mind itſelf, as capable of theſe different exertions or impreſſions, and form what Locke calls its nominal eſſence. Nor are they *modally* diſtinct, for they are not ſtates of the mind; and thence we are not conſcious of poſſeſſing them, but only know by experience that we do poſſeſs them; yet they are diſtinct, as they relate to different objects, and have different effects: and hence their diſtinction is merely *mental*. One cannot exiſt without the other, though their exertions may be variouſly obſtructed: this diſtinction is commonly called *virtual*.

75. *Negations* denote acts of the mind, denying the preſence, or (in other words) affirming the abſence either of *all* beings, modes, properties, qualities, or relations, or of ſome *particular* mode, property, quality, or relation; which denial may be expreſſed with or without any reference to the ſubject of ſuch

ſuch mode, property, quality, or relation, that is, in concrete or abſtract terms.

76. Thus the word *nothing* denotes a denial of all beings, modes, &c.: ſo *ſilence* denotes the abſence or denial of *ſound*; *blindneſs* the abſence of the power of ſeeing; *darkneſs* the abſence of light; *deafneſs* the abſence of the power of hearing; *inſipidity* the abſence of taſte; *widowhood* the abſence of the relation to a pre-exiſting huſband, &c. *So concrete negative words* expreſs indefinitely the ſubject of the mode, property, quality, or relation, which is denied: thus *blind* denotes indefinitely an animal to whom the power of ſight is denied; *deaf*, one to whom the power of hearing is denied; *widow*, a woman, to whom the relation to a pre-exiſting relation, a huſband, is denied; *childleſs*, a perſon to whom the relation to an offspring is denied.

77. Hence negations, as ſuch, exiſt only in the mind denying the exiſtence of all beings, or of ſome mode, property, &c. and grounded on the nonexiſtence of what is ſo denied.

78. A *ſhadow* is a ſpace, which, by reaſon of the intervention of an opake body, has leſs light thrown upon it than is thrown on

the ſurrounding ſpace, or no light at all. And yet, as Mr. Locke remarks,* the ſhadow is diſcernible, and the more diſcernible as leſs light is thrown upon it. Hence he infers, that darkneſs may be ſeen: this I do not think true. It is the enlightened circumference of the ſhadow, or darkened ſpace, and not the darkneſs itſelf, which can be ſaid to be ſeen, and the more diſtinctly ſeen as the ſpace it ſurrounds is darker: this circumference delineates the figure of the opake body that interrupts the light. Darkneſs can no more be ſeen than ſilence heard; yet both are ſaid to be perceived, or rather judged to exiſt, when no light, or a comparatively moderate light, is perceived in the one caſe, or no ſound in the other.

79. In *technical language*, the abſence of modes or powers, &c. from ſubjects that are not capable of receiving them, are called *negations*; and their abſence from ſubjects in which they are uſually found, are called *privations*. Thus inſenſibility, or abſence of feeling, in mineral bodies, is called a nega-

* Book ii. ſec. 5, 6. Chap. viii.

tion;

tion; and blindneſs in animals, is called a privation.

80. *Oppoſition* denotes the repugnance or incompatibility of the preſence and abſence of the ſame thing at the ſame time. Thus exiſtence and nonexiſtence are oppoſed to each other, and ſight and blindneſs, &c.

81. Or, ſecondly, the incompatibility of different modes in the ſame circumſtances and the ſame organ. Thus a figure cannot at the ſame time appear round and ſquare; but a round figure may in a certain poſition appear elliptical, and by certain dioptrical glaſſes appear of a different figure: ſo alſo the ſame water may appear cold to a warm hand, and warm to the other colder hand.

82. Or, thirdly, the impoſſibility of being at once the ſubject and term of the ſame (not merely a ſimilar) relation. Thus a man cannot be both the father and the ſon of the ſame perſon: and thus correlatives are oppoſed to each other.

SECT. V.

OF UNITY, NUMBER, QUANTITY, INDIVIDUATION, IDENTITY, INFINITE INDEFINITE.

83. Any thing or collection of things which cannot be divided or diſtinguiſhed into more things equal to it, is called *one* or an *unit*. Thus a *man* is one, becauſe he cannot be divided into two men: ſo an *army* is an unit, becauſe it cannot be divided into two equal armies: ſo a kingdom is *one*, as it cannot be divided into two equal kingdoms.

84. Unity is either perfect or imperfect.

85. *Perfect* is that which is incapable of being divided into any parts whatſoever, whether equal to the whole or unequal to it. Thus God and the human ſoul are perfect units, as they do not conſiſt of parts. *Single* ſignifies not more than one: *alone* ſignifies having no companion.

86. *Imperfect* units or things are combinations of things or units under *one name*, and conſequently diviſible into parts. Thus an *army* denotes a combination of regiments, companies, and finally of the men that compoſe

poſe it: a *houſe* denotes a combination of walls, windows, rooms, chimneys, &c.: and a *city* a combination of houſes, ſtreets, lanes, &c. In a word, whatever the mind conſiders as *one*, that is an unit: thus *dozen*, though conſiſting of twelve units, is called *one* dozen, &c.

87. The parts of an imperfect unit, if of the ſame kind as the unit, are called fractions.

88. *Number* is defined by Euclid, a collection or aſſemblage of units, of the ſame kind or ſpecies: if of different kinds, we ſhould rather call it a *multitude*. Any number greater than *one* is called *plurality*.

89. *Quantity* denotes any thing ſuſceptible of increaſe or diminution until this increaſe arrives at its *maximum*, or the diminution to a *minimum*: if ſuſceptible of exact menſuration or numeration, it is called a *perfect* quantity; if not, *imperfect*.

90. No modes (except the tactile), nor properties, qualities, or relations, are capable of *exact* menſuration, though many are ſuſceptible of increaſe or diminution: their various approaches to the greateſt increaſe or diminu-

tion (whichſoever we reckon from), are called *degrees*: ſome of them are indirectly menſurable by their coincidence with ſome tactile modes. Thus heat and cold are menſurable by the ſpace which the bodies that poſſeſs them occupy, and its proximity or diſtance from the *maximum* or *minimum* ſtandard of their intenſity.

91. Quantities are either connected or unconnected; the former are called *continued*, the latter *diſcrete*.

92. *Individual* ſignifies a perſon (or even an animal) ſeparate or diſtinct from another of the ſame ſpecies.* Hence Locke juſtly infers, that the principle of individuation, or that which eſſentially diſtinguiſhes one individual from another, is the ſeparate or diſtinct *exiſtence* of each, † which makes one individual incommunicable to the other, in oppoſition to the opinion of ſome ſcholaſtics, who would have individuals diſtinguiſhed from each other by ſome fictitious entity or formality ſuper-

* A child in its mother's womb is not ſeparate, but diſtinct from the mother.

† Locke, B. ii. C. xxvii. ſec. 3; and Clarke's Reply to Waterland, 308.

added

added to each. In general, however, their diſtinction is notified by ſome accidental difference of ſize, ſhape, voice, features, &c. But even if they were perfectly ſimilar, they would ſtill be diſtinct and ſeparate, occupying different places, and acting differently.

93. *Identity*, or *ſameneſs*, in the ſtrict ſenſe of the word, denotes the excluſion or denial of any change in the *nature* of the thing which is ſaid to be the ſame.

94. Thus a ſubſtance, for inſtance the human ſoul, is juſtly ſaid to be the ſame when no other ſubſtance is ſubſtituted in its ſtead; but a change of its modifications, as the ſubſtance itſelf is not altered, does not prevent it from being the ſame ſubſtance, or affect its identity: thus the ſoul this hour feeling pain, and the next hour pleaſing ſenſations, is ſtill the ſame ſoul; nor is it changed by thinking on different things, &c. So a child is deemed to be the ſame being when a grown man: ſo a mode (property, quality, or relation) is deemed to be the ſame mode while it undergoes no alteration, for its nature is not changed; nay, an interruption of the exiſtence of a ſubſtance, or mode, &c. does not

prevent them from being exactly the ſame, when renewed, with what they were before ſuch interruption. Thus if my ſoul was annihilated this day, and again created to-morrow, or next year, it would ſtill be my ſoul the ſame, and not another: ſo if the pain which I may feel to-day be exactly, both in kind, and degree, and reference, ſuch as I felt yeſterday, notwithſtanding any interruption, I muſt deem it the ſame, and not merely *ſimilar*; for it is only the pain ſuffered by another perſon, and not differing from mine in either kind or degree or reference, that can be called ſimilar.

95. I cannot, therefore, agree with Mr. Locke, (B. ii. C. xxvii. ſec. 13.) in thinking identity to be a relation, either to time or to place; for theſe and other particulars are conſidered only with the view of aſcertaining identity, by obſerving whether any change in the object has happened from the time in which it firſt exiſted or was known, or whether another had ſince been ſubſtituted in its place.—"When we demand (ſays he), whether any thing be the ſame or no? it refers always to ſomething that exiſted at ſuch a time,

" time, at ſuch a place, which it was certain " at that inſtant was the ſame with itſelf, and " no other." How a thing can be the ſame with itſelf I do not well underſtand: it appears to me, that the meaning of the queſtion is, has the thing been changed from ſuch a time? Hence he infers, " that one thing " cannot have two beginnings of exiſtence;" which alſo appears to me a miſtake; for I cannot think a thing to become impoſſible, merely for having once ceaſed to exiſt.

97. Concerning the identity of man,* Locke† inquires very minutely in what it conſiſts: whether in poſſeſſing the ſame ſubſtance, or the ſame ſhape? and in what caſes he can be deemed the ſame perſon? In reply to theſe queſtions—

He affirms, firſt,‡ that "whoever would " ſee a creature of his own ſhape and make, " though it had no more reaſon than a cat, " would ſtill call it a man:" a common man would probably do ſo, but a philoſopher, not

* I omit mentioning other animals here, as it is, at leaſt, doubtful whether they are not mere automatons.

† Sec. 7. ‡ Sec. 8.

knowing

knowing its origin, would probably ſuſpend his belief until more amply informed.

98. Secondly, he is confident that whoever would hear a cat or parrot diſcourſe, reaſon, and philoſophize, would ſtill call and think it nothing more than an intelligent rational parrot. On the contrary, I am diſpoſed to think, that, in ſuch a caſe (if ſuch can be ſuppoſed), every one would conclude that ſuch animals were animated by a ſupernatural agent, and not mere cats or parrots. Thus every chymiſt would conclude, that a ſubſtance having all the properties of gold, except inſolubility in water, was not gold.

99. Thirdly, he thinks* that "whoever "ſhall place the identity of man in any thing "elſe but like that of other animals, in one "fitly organized body, taken in any one in-"ſtant, and thence continued, under one orga-"nization of life, in ſeveral ſucceſſively fleet-"ing particles of matter united to it, will "find it hard to make an embryo, one of "years, mad and ſober, the ſame man, by any "ſuppoſition that will not make it poſſible "for St. Auſtin and Cæſar Borgia to be the

* Sec. 6.

"ſame

"ſame man." On the contrary, I am certain that an embryo, gradually paſſing to maturer age, and whether mad or ſober, would be, and always is, thought the ſame human being, though not called a man until of a certain age. * And it were abſurd to think that St. Auſtin and Cæſar Borgia could by any poſſibility become the ſame man, the mental characters and diſpoſitions of both being irreconcilably different, and no gradual tranſition from one to the other is ſuppoſed; but, ſetting aſide the knowledge we have acquired from revelation, I do not think it impoſſible that Charles the Second and Tiberius might have been the ſame man.

100. Fourthly, he ſuppoſes, that though one ſhould know that the ſoul of a man animated an animal of another form, for inſtance, the ſoul of Heliogabalus the body of a hog, he would not ſay that hog was a man. I certainly would ſay it was a man, in the ſhape of a hog, for it contained the principal part of a man, and *denominatio ſit a potiori*; juſt as I would ſay, that a copper coin, ſo

* As the word *man* denotes not the ſpecies and ſex, but alſo frequently a certain age.

whitened

whitened as to look like ſilver, was ſtill copper, and not ſilver.

101. Fifthly, he propoſes two queſtions: firſt, "whether, if the ſame ſubſtance which "thinks be changed, it can be the ſame per- "ſon? and, ſecondly, whether remaining the "ſame (ſubſtance), it can be different per- "ſons?"

101. His anſwer to the firſt queſtion, as far as it regards the ſyſtem of materialiſts, I ſhall not notice, as I conſider that ſyſtem as purely chimerical: but, ſuppoſing immaterial ſubſtances only to think, he anſwers, "that this "queſtion can be ſolved only by thoſe that "know whether the conſciouſneſs of paſt ac- "tions can be transferred from one thinking "ſubſtance to another." He grants, "that "were the ſame conſciouſneſs the ſame indi- "vidual action, it could not; but it being "but a preſent repreſentation of a paſt ac- "tion, why it may not be poſſible that that "may be repreſented to have been which "really never was, will remain to be ſhewn; "and, therefore, how far the conſciouſneſs of "paſt actions is annexed to any individual "agent, ſo that another cannot poſſibly have it,

"it, will be hard to determine, until we "know what kind of action it is that cannot "be done without a reflex act of perception "accompanying it. But that which we call "the *ſame conſciouſneſs*, not being the ſame "individual act, why one intellectual ſub- "ſtance may not have repreſented to it, as "done by itſelf, what it never did, and was "perhaps done by ſome other agent; why "ſuch a repreſentation may not poſſibly be "without reality, as well as ſeveral repreſen- "tations of dreams are, will be difficult to "conclude from the nature of things.* If "the ſame conſciouſneſs can be transferred "from one thinking ſubſtance to another, it "will be poſſible that two thinking ſub- "ſtances make but one perſon; for the ſame "conſciouſneſs being preſerved, whether in "the ſame or different ſubſtances, the perſonal "identity is preſerved."

102. Here Mr. Locke ſeems to have miſtaken the nature of conſciouſneſs, which it is therefore neceſſary to explain.

Every perception is the perception *of* ſome-

* Sec. 12, 13.

thing,

thing, and *by* ſomething. Inaſmuch as it refers to the thing or object perceived, it is ſimply called a *perception*; inaſmuch as it refers to the percipient, or mind that perceives, it is called *conſciouſneſs*: perception, then, and conſciouſneſs, are not two different modifications, but one ſingle modification, conſidered in diſtinct relations. Thus when we ſee any thing, colour is the *object* perceived, and mind is that by which it is perceived.

103. Beſides the conſciouſneſs of our perceptions, we have alſo a conſciouſneſs of the *identity* of the percipient ſubſtance: thus when I ſee a colour, and at the ſame time hear a ſound, I am conſcious, that is, I feel and evidently know, that I am the ſame *ſelf* or ſubject that receives theſe two different ſenſations; but of a paſt ſenſation I can have no preſent conſciouſneſs, for the very reaſon that it is paſt: that I had it, I know only by *memory*, and not by conſciouſneſs.*

104. In the ſame manner the identity of our *paſt* ſelf, with our *preſent* ſelf, we know

* So alſo Dr. Reid on the Mental Powers, Eſſ. iii, C. vi. p. 334, in 4to.; and Segui Log. 483.

only

only by memory, (the explanation of which here would be too tedious, and out of place): now memory may be rendered inaccurate by various diſorders, and is conſtantly ſo in dreams.

105. But, to return to Mr. Locke, we may remark that he here ſeems to forget the definition of conſciouſneſs which he had given B. ii. C. i. ſec. 19. He there very properly lays it down, that *conſciouſneſs is a perception of what paſſes in a man's own mind.* Therefore there is no difficulty in determining whether the conſciouſneſs of paſt actions is annexed to any individual agent, ſo that another cannot poſſibly have it, as no agent whatſoever can have the conſciouſneſs of a paſt action; but there is no doubt that a perſon may have his imagination ſo diſordered, as to think himſelf a different perſon from what he really is, and may, in that caſe, fancy he remembers, as his own, the actions performed by that perſon; thus Pythagoras, in Ovid, Metam. Lib. xv. v. 160, fancied he remembered having been Æthalides, and afterwards Euphorbus, and having been wounded at the ſiege of Troy, &c. This however is not

not true memory, as ſhall elſewhere be ſhewn; much leſs is it conſciouſneſs; and conſequently, it is impoſſible that two thinking ſubſtances ſhould make but one perſon.

106. To the ſecond queſtion, "whether "the ſame immaterial ſubſtance remaining, "there may be two diſtinct perſons?" he anſwers, that without having the conſciouſneſs (that is, the memory) of having been another perſon, though it ſhould formerly have animated a different body, it yet cannot be deemed the ſame perſon; and, conſequently, now animating a different body, it muſt be deemed a diſtinct perſon. But if it had the conſciouſneſs (memory) of any of its actions in a former ſtate, it would then be the ſame perſon. And this I believe to be true, if ſuch memory were not the effect of delirium or inſanity.

107. Hence he concludes; * that perſonal identity conſiſts, not in identity of ſubſtance, but in identity of conſciouſneſs. Thus Socrates aſleep is not the ſame perſon as Socrates awake, and therefore it would be unjuſt to puniſh him when awake for what he did when aſleep. He allows him to be the

* Sec. 1. 9.

ſame

ſame *man*, but not the ſame *perſon*. "And if it "were poſſible for the ſame man to have "diſtinct incommunicable conſciouſneſſes at "different times, it is paſt doubt the ſame "man would at different times make different "perſons; hence human laws will not puniſh "the mad man for the ſober man's actions, nor "the ſober for the mad man's."

I ſhould rather think that perſonal identity requires both identity of ſubſtance and ſuch memory as would enable a man to conſider himſelf as himſelf at different times and places, as Locke himſelf lays down.* Strictly ſpeaking, indeed, a man when aſleep or mad, cannot be deemed a perſon; becauſe in thoſe ſtates he has not the uſe of reaſon; which, as Locke owns, is neceſſary to conſtitute a human being, a perſon; and, therefore, it would be unjuſt to puniſh him for actions committed in thoſe ſtates, though ſtill the ſame man, having in thoſe ſtates neither reaſon nor liberty. And if it were poſſible for the ſame man to have different trains of reminiſcence at different times, ſo as that he

* Sec. 9.

could not conſider himſelf as the ſame man, though enjoying each time the uſe of reaſon I alſo think he may be eſteemed two different perſons; as, to conſtitute a man the ſame perſon, perſuaſion of identity, grounded on memory, is neceſſary, as well as identity of ſubſtance.

108. Identity is either phyſical or moral, that is, popular and apparent.

109 *Phyſical* identity denotes the identity of ſubſtance, or modes, as already ſaid, N° 93. 94.

110. *Moral* identity denotes that which vegetables and animals poſſeſs, and conſiſts in the peculiar diſpoſition of the parts of each, appropriated to each ſpecies, and ſuch organization of thoſe parts, in one coherent body, as to fit them to receive nouriſhment. In ſuch organization, vegetable and animal life conſiſt: they therefore continue the *ſame*, as long as that life continues, though the parts be continually changed, by the loſs of ſome and the acceſſion of others. Thus an oak growing from a plant to a great tree, and then lopped, is ſtill the ſame oak; and a colt grown up to a horſe, ſometimes fat, ſometimes

times lean, is ſtill the ſame horſe, though in both caſes there is a manifeſt change in the parts.*

111. So alſo unorganiſed bodies, that preſerve the ſame general appearance at different times, though their parts ſucceed each other and are conſtantly changed, are, in popular language, called the *ſame*, and preſerve the ſame denomination. Thus, though the water of a river is continually changed, yet while it preſerves the ſame, or nearly the ſame, direction, it is called by the ſame name, and is eſteemed the ſame river. So the ſhip of Theſeus continued ſtill to be called the ſame ſhip, when after repeated repairs there did not remain a ſingle piece of the timber of which it had been originally built.

112. Identity is alſo diſtinguiſhed into generic, ſpecific, and individual: this laſt alone denotes true and real identity; the two former refer only to the claſſification of objects, and ſuch identity is, properly ſpeaking, only a greater or leſs degree of *ſimilitude*; thus we ſay, that wine, in two glaſſes taken out of the ſame bottle, are the *ſame wine*, becauſe

* Locke, Book ii. Chap. xxvii. ſec. 3

the wine in one is in every reſpect ſimilar to that in the other. But they are not exactly or *individually* the ſame, ſince one may be thrown away, and the other remain; they are only *ſpecifically* the ſame.

SECT. VI.

113. *Infinite* is a term taken in three ſenſes. In the firſt, and moſt rigourous ſenſe, it denotes the actual excluſion of limits from the quantity to which it is attributed: this is called an *actual infinite.*

114. In the ſecond ſenſe it denotes a quantity, which *can* be increaſed or diminiſhed without ever arriving at the *maximum* of increaſe or diminution; that is, without ever arriving at a limit of either: this is called a *potential infinite.*

115. Thirdly, it denotes a quantity whoſe limit, whether of increaſe or diminution, is abſtracted from, and therefore *unaſſignable.* This is called, a *mathematical infinite,* being a mere mathematical device to abridge and facilitate certain calculations: but no mathematician at preſent pretends that any quantities

tities infinitely great, or infinitely ſmall, really exiſt, they being mere mental abſtractions.

116. Mathematicians even ſpeak of infinites of the ſecond, third, and fourth order, as if the infinites of the ſecond order were infinitely ſmaller than thoſe of the firſt, and thoſe of the third infinitely ſmaller than thoſe of the ſecond, &c.; but this alſo is a mere mathematical ſuppoſition, namely, that if the quantity x be aſſumed infinitely ſmall, with reſpect to a given finite quantity, that is, ſo ſmall that its magnitude is not aſſignable, the ratio of y to x may be as ſmall with reſpect to x, as x is with reſpect to the given finite quantity; here x is taken as an infinite of the firſt order, and y an infinite of the ſecond order; thus y, x, x, a; but theſe are mere ſuppoſitions, not realities, like points without extenſion, and lines without breadth, &c.*

117. Yet Mr. Fontenelle, and ſome other mathematicians imagined, that numbers infinitely great, and infinitely ſmall, really exiſt.

* See Encyclop. Mathem. p. 208. Mem. Berlin, 1745 p. 154. Lambert, Expoſition des Principes, p. 144. 1 Leib. p. 107. 1 Philoſoph. Wolfienne, 204. 205.

They are well refuted by Mr. Iarriges, in the Memoirs of Berlin for 1745, and in the Encyclop. Mathem. article *Infini.* p. 208.

118. Some have defined infinite to be a quantity incapable of increaſe, and thus confounded it with what mathematicians call a *maximum*; but the ſinus of an angle of 90° is incapable of increaſe, and yet it is not an infinite.

119. Wolfe defines an infinite to be that which has at once all that it can have. This, though expreſſed in poſitive terms, ſtill expreſſes a negation of a limit.

120. *Subſtance*, as ſuch, cannot, properly ſpeaking, be ſaid to be infinite, becauſe it is not a quantity or magnitude, as Locke well remarks; but the extent to which any property reaches, or may reach, is an imperfect quantity, and therefore ſuſceptible of *degrees*.

121. The phyſical and moral properties of God, as power, intelligence, knowledge, juſtice, mercy, goodneſs, &c. are alone infinite, as they are incapable of any limit.

122. A *finite* quantity is that which hath a limit: of many finite things we may have an idea, and of many only a notion. Thus we

may.

may form an idea of three men, or three houſes; but of a million of men, or a million houſes, we have only a notion grounded on their ſign: but of *infinite* we can form no idea, but only a notion founded on a judgment denying any limit,

123. Hence the idea or notion of *finite* is a poſitive idea, or notion grounded on a judgment aſſerting a limit, though that limit be undetermined and unknown; thus we ſay, the number of grains of ſand on the ſea ſhore is *finite*, or of blades of graſs on the ſurface of the earth, &c. is *finite*, though we cannot determine its limit and tell what it amounts to. But the notion of *infinite* is a negative notion, barely aſſerting the impoſſibility of fixing a limit to the quantity of which it is predicated; or, to expreſs the ſame thing in abſtract terms, *finitude* denotes the exiſtence of a limit; *infinitude*, the excluſion of any limit.*

124. The Carteſian philoſophers think, that the notion, or as they call it the idea, of in-

* Clarke's notion of *infinite* is incorrect; ſee his reply to Waterland, p. 226. He confounds infinite with that to which *infinity* is attributed.

finite is poſitive, and that of finite negative; and they prove it by what Locke, ſec. 14, calls a pleaſant argument: for infinite, they ſay, denotes the negation of an *end*; now an end being negative, the negation of it muſt be poſitive. Locke anſwers very properly, that an *end* is not a bare negative; thus the end of a body, is the extremity or ſuperfices of that body; he that perceives the end of his pen is black, will be apt to think that the end is ſomething more than a pure negation. So the *end* of duration is properly the laſt moment of it, and the beginning of duration is the firſt moment of it.

125. But, to anſwer this objection more fully, it muſt be noted, that the words *end*, and *laſt*, and *limited*, are excluſive words, which import ſomething poſitive, which is ſaid to be the *end*, or the *laſt*, or the *limit*, and alſo the negation of a continuance; but *infinite* ſhould in this caſe barely deny the negation of the *continuance*, but not the poſitive thing itſelf, which is ſaid to be the end, for this continuance alone is denied, and is the only negative part; therefore, the negation would be incomplete; and from the

partial

partial negation of a thing, partly poſitive and partly negative, nothing poſitive can reſult.

126. *Indefinite* is a quantity which we do not, or cannot, preciſely determine, though we know it to be finite: thus the number of grains of ſand in the ſea is indefinite. It differs from *unaſſignable* in this, that unaſſignable denotes greater or ſmaller than any number that *can be aſſigned*, whereas, indefinite denotes a number that *may exceed, or not*, an aſſigned number.

127. Many queſtions concerning infinity have been agitated at various times and occaſions, and are ſtill mentioned in various controverſies, and therefore require to be noticed here.

128. Firſt, Whether a creature infinitely perfect be poſſible?

It is generally held, that ſuch a creature is impoſſible; for, beſides many other reaſons that might be alleged, ſuch a creature would neceſſarily depend on the Supreme Being, from whom it ſhould receive its exiſtence: now dependance on any other being is incompatible with infinite perfection.

129. Secondly,

129. Secondly, Whether a number actually infinite be poſſible?

In my opinion, and in that of many others, it is not: ſuch a number involves a contradiction to the notion we have of number; for, according to our notion of number, it being a collection of diſtinct units, it is eſſential to it to be capable, I will not ſay of addition, as that would be ſuppoſing that which is queſtioned, but of ſubtraction and diviſion. Now if we ſubtract one unit from this collection, or one half of the whole, what would the remainder be? Surely not infinite: both halves would then be finite; and of two finite numbers an infinite could not be formed.

130. Thirdly, Whether the number of poſſible things be infinite?

This queſtion was lately examined in the Academy of Berlin, for the year 1777, p. 408. It is there held to be finite: the oppoſite opinion appears to me to be true; as the number, for inſtance, of men poſſible is inexhauſtible, it denoting nothing repugnant to increaſe; and the knowledge of God, to whom alone it is known, has no boundary: but

but the number, whoſe exiſtence is poſſible at any given time, is finite, though unaſſignable. It is only in an infinite time that it may be conſidered as infinite—a time that can never be exhauſted or terminated; and conſequently this number can never be conſidered as a totality, not even in the Divine intellect: collectively taken, it is always finite, but diſtributively, infinite. Thus the abſurdities of an actual infinite are avoided.

131. Fourthly, Whether the Divine power be infinite?

It certainly is; for it extends to every thing poſſible, and compatible with his own nature, but not to impoſſibilities, or acts incompatible with his nature: for inſtance, to deceptions, breach of promiſes, rendering the innocent miſerable, &c. Creation is a full proof of the extent of this power, as no greater can be conceived, than to make ſomething exiſt that previouſly did not exiſt; by a mere act of will, to make all things to exiſt that were abſolutely willed to exiſt.

Yet he cannot create an actual infinite, as ſuch an infinite implies a contradiction: thus, for inſtance, a number or collection of men, actually

actually infinite, is repugnant, as the number of eyes or ears would be ſtill greater, which is repugnant to infinitude.

SECT. VII.

OF ACTION, CHANGE, FORCE, POWER, OBJECT, SUBJECT, PERFECTION, CAUSE, MANNER, PRINCIPLE, CHANCE.

132. *Action*, in the ſtrict ſenſe, is a modification of mind produced by the mind itſelf.

133. In created minds this modification effects a change of ſuch modifications as depend on the mind itſelf, either directly or indirectly; but not in thoſe ſtates that are independent on it: this requires explanation.

134. There are but two caſes in which the mind produces its own modifications, and conſequently may be ſaid to act, or be active; namely, when it *judges*, and when it *wills*.

135. In judging, it barely affirms or denies, or doubts, or ſuſpends aſſent or diſſent.

136. The *immediate and direct* acts of the will are election or rejection, with more or leſs force, of ſuch objects as are propoſed to its choice, or ſuſpenſion of any choice; but *indirectly*, and through the intervention of the Divine

Divine power, acting according to certain laws, as will hereafter be ſeen, it produces, or rather occaſions, a change or diverſification of its own ideas, and alſo motion in different parts of the body, ſubjected to the immediate control of its will, and through it of other bodies alſo.

137. The being that acts, or occaſions this change, is called the *agent*; and that in which it is produced, is called the *ſubject*.

138. God is the only Being that hath the power of acting on other ſubſtances, either by bringing them into, or deſtroying their exiſtence, or impreſſing on them modifications regulated and varied according to certain laws of his own appointment. We ourſelves are incapable of altering or ſuppreſſing any of our ſenſations; for inſtance, hunger, thirſt, pain, or pleaſure, by a *mere* act of our will.

139. Nor have we any reaſon to think, that other ſuperior orders of created beings can act upon us in any way, any more than that we can act upon them. The power of acting on our minds is not implied in any notion we can form of them; therefore, if it exiſts,

exiſts, it cannot be known but by revelation; and by that Mr. Farmer has ſhewn it cannot be proved. From the ſuperiority of any order of beings over other orders, it cannot be inferred, that, in every caſe, it poſſeſſes powers ſuperior, or even equal, to thoſe poſſeſſed by inferior orders: thus men cannot fly like birds, nor inhabit the ocean like fiſh.—It is only in the power of reaſoning that the human ſpecies is ſuperior to other animals.

140. *Change* denotes a ſucceſſion of ſtates.

141. *Force* denotes the degree in which power is exerted.

142. To explain more fully the meaning of this term in the metaphyſical ſenſe, it is neceſſary to remark, firſt, that the acts of the underſtanding are elicited with a degree of confidence, greater or leſſer, according as the reality and ſteadineſs of the relations on which they are founded, or their nullity, are more or leſs accurately diſcerned. Therefore, when this relation is accurately diſcerned, that is to ſay, *evident*, the mind is neceſſitated to aſſent; and if the impoſſibility of its exiſtence, by reaſon of the repugnancy of a relation betwixt the ideas or notions offered, be clearly perceived

perceived or diſcerned, the mind is neceſſitated to deny its aſſent. But if the relation, upon which a judgment ſhould reſt, be not clearly diſcerned, but only the poſſibility of its exiſtence *apparently* ſuperior to that of its nonexiſtence, then the aſſent is given with leſs confidence; and ſo alſo, if the exiſtence of the relation is barely inferred from a weak analogy, and *vice verſa*. Alſo, if the nonexiſtence of the relation, or its repugnancy, be not clearly diſcovered, but only the *apparent* inferiority of the chances favourable to its exiſtence, or if its nonexiſtence be inferred barely from its entire want of, or at leaſt from an imperfect, analogy, the diſſent or aſſent is attended with a lower degree of confidence.

143. Secondly: With reſpect to the will, its acts are accompanied with more or leſs *deſire* or *averſion*, according, in one caſe, as the objects propoſed to its election appear to contribute more or leſs to its ſatisfaction or happineſs, or in the other, to its diſſatisfaction or miſery. Theſe degrees, whether of confidence with reſpect to the acts of the underſtanding, or of deſire or averſion with reſpect

reſpect to thoſe of the will, conſtitute what, in the ſtrict ſenſe, is called *force*.

144. But *force* is alſo underſtood in a more enlarged ſenſe; for as the Supreme Being, in certain caſes, alters or moves that aggregate of ſenſations which are called *bodies*, and that frequently in correſpondence to the deſires of the will, as well as to the laws by which the ſucceſſion of theſe ſenſations and their various kinds are regulated, it may be ſaid that the will itſelf, conforming to theſe laws, acts upon its own and other bodies with an extent proportioned to the intenſity of its wiſhes, the nature of the bodies acted on, and the laws by which they are governed. The extent or degree of the action on bodies reſulting from the combination of their maſs and velocity, exerted directly by the Supreme mind, or indirectly by the human, is what is called *phyſical force*. Bodies themſelves are perfectly paſſive, and the motions, ſeemingly ariſing from an unintelligible communication of force or motion, are, in fact, changes operated ſolely by the operation of the Divine will, uniform or varied, according to laws adapted to each particular caſe.

145. *In*

145. *In morals*, it denotes the degrees of appetibility of objects preſented to the mind, or, on the contrary, their averſibility; that is, the diſguſt, averſion, or abhorrence, they ſeem calculated to excite and inſpire; for ſuch as is their appetibility or averſibility, ſuch is their force.

146. *Power*, in the metaphyſical ſenſe of the word, denotes an eſſential property of mind, which renders it fit or ſufficient for the production of action, and thereby to effect a change of ſtate, or a new exiſtence, or modification, or relation.

147. As the mind acts both in judging and willing, it muſt poſſeſs both powers; but to produce either action, objects muſt be preſented to it. To enable the underſtanding to judge, the objects muſt be intelligible, otherwiſe they would not be objects but mere ſounds; they muſt bear ſome relation to the mind itſelf, or to each other, elſe no judgment concerning them can be formed; but if they be ſuch as imply the impoſſibility of any relation to each other, the mind can affirm this repugnancy.

148. The relations of objects to the mind

penſity of all ſenſitive beings to attain pleaſure or happineſs, either preſent or future, and to ſhun actual or future pain or miſery.

155. Objects preſented to the will under theſe different aſpects, and frequently accompanied with the emotions of deſire or averſion, are called *motives*.

155[b]. Any thing, however denominated, preſented to the mind, about which it is occupied, and on which it may, or does, beſtow its attention, and alſo any end which it either purſues or avoids, is called an *object*.

155[c]. *Subject* denotes that on which any action operates, or which admits a modification, or from which any relation proceeds or may be deduced.

155[d]. *Perfection* denotes any power, property, quality, or relation, which it is better to have than to want, and alſo that which is complete in its kind.

155[e]. *Faculty* is a name given to a claſs of powers or capacities, exiſting, or generally inherent, in the human mind.

156. *Cauſe*, ſtrictly ſo called, is a being by whoſe mere will a change of any kind happens: the reſulting change is called an *effect*,

fect, and is ſaid to be produced. The act of the will which cauſes the exiſtence of a ſubſtance, is called *creation*, and that which deſtroys it, *annihilation*. The act of the will which induces a modification, is ſaid to *produce* it; and in each caſe, the being by whoſe will it exiſts, or ceaſes to exiſt, is called the *efficient cauſe* of its exiſtence or deſtruction. The notion of cauſation neceſſarily follows the perception of any change.

157. The Supreme Being alone poſſeſſes the power of creation, or even of producing or altering the ſenſations, ideas, or emotions, in the human mind; but the mind itſelf eſſentially poſſeſſes the power of producing its volitions or nolitions, and its judicial determinations.

158. And *indirectly*, that is, by the intervention of, and in conformity with, certain laws, appointed by the Supreme Being, it can, at will, alter its ideas, and in many caſes its ſenſations, excite motion in its own body, and by it in other bodies; and thus may be conſidered as an efficient cauſe, though ſecondary.

159. But in a looſe or leſs rigorous ſenſe,

any thing that contributes to the exiſtence or modification of a being, or to the deſtruction of either, is called the *cauſe* of either reſpectively.

160. Now many things may contribute to the exiſtence of an effect. Thus, firſt, whatever excites the will to produce an effect, is called a *motive* to that volition, or to *influence* it: any mere mental excitement is called an *influence*, and the advantage expected, in conſequence of the volition, is called the *final cauſe* of the volition: both are called *moral cauſes*, and both are frequently the ſame.

161. Secondly, any object or event, whoſe occurrence or abſence becomes a motive on which a volition is grounded, is called the *occaſional* cauſe of that volition. Thus the neighing of Darius's horſe was ſaid to have been the occaſional cauſe of his election to the ſovereignty of Perſia.

162. So alſo, ſuch objects or events, whoſe occurrence or abſence remove an obſtacle to the operation of *natural* cauſes, become the *occaſional cauſes* of the effects produced by thoſe natural cauſes. Thus the rupture of a dyke in Holland, by admitting an inundation, is the

the *occaſional cauſe* of the inundation, and the ravages it produces. So the want or abſence of a pilot, or his want of ſkill, is often the occaſional cauſe of a ſhipwreck.

163. The qualification of a perſon, or the poſition, figure, or other modification of an object, which enables him, or it, to obſtruct the operation of a cauſe, is called the *conditio ſine qua non*, or neceſſary condition. Thus the ſkill poſſeſſed by a pilot, and the exerciſe of that ſkill, are the conditions neceſſary to the avoidance of ſhoals. So opening the eyes is a neceſſary condition to ſeeing, &c.

164. And that which, acting blindly or neceſſarily under the *management and direction* of another cauſe, overcomes the reſiſtance of natural cauſes, or in general produce any effect, is called the *inſtrumental cauſe* of that effect. Thus machines are inſtrumental cauſes of the effects they produce.

165. Perſons, in conſequence of whoſe volitions bodies are acted on, and alſo bodies acting on other bodies, or appearing to do ſo, in conſequence of the laws by which corporeal nature is governed, are called *phyſical* or

natural cauſes: this appellation is commonly confined to the laſt-mentioned claſs.

166. Objects or events which are the effects of one prior cauſe, may themſelves become the cauſes of other effects connected with the firſt, and thus a train of cauſes and effects may be indefinitely prolonged; the firſt is called the *primary, principal,* or *remote* cauſe, and the ſubſequent acting in conformity to his intention are called *ſubordinate* cauſes, and the laſt the *immediate* cauſe of the effect.

167. Cauſes are alſo *total* or *partial, ſingle* or *conjoint, independent* or *dependent.* A horſe drawing a weight not ſuperior to his ſtrength is the *total, ſingle,* and *independent,* cauſe of its motion; and two horſes drawing a weight, though ſuperior to the ſtrength of each, are *conjoint* cauſes of its removal, each *dependent* on the aſſiſtance of the other, and each the partial cauſe of the effect produced.

168. A man finding his houſe inconvenient, (the motive,) determines to build another more convenient (the final cauſe of his volition); for this purpoſe, (the ſubordinate motive,)

motive,) he employs maſons, carpenters, and ſmiths, who conſtruct the edifice of which he is thus the principal efficient cauſe, and the artificers employed the ſubordinate partial efficient cauſes, each of his part of the building; the labourers that convey the materials are *animate*, inſtrumental cauſes, and the various tools uſed by the artificers, the *inanimate*, inſtrumental cauſes: thus it is, that a king is ſaid to build cities, fortify towns, conſtruct temples, &c. and a general to gain victories; but, with reſpect to the reſults of the liberal arts, the artiſts alone are called the efficient cauſes of their reſpective effects: thus the painter alone is the efficient cauſe of his picture, and the perſon who employs him is not ſaid to have painted them: and the ſame may be ſaid of many of the mechanical arts; the will of the perſon who employs the artiſts is perhaps only the *exciting cauſe*, or motive, of their ſeveral operations.

169. Cauſes may be conſidered as *intentional*, that is, acting with an intention to produce the effect; or as *accidental*, when the effect is neither deſigned nor even foreſeen.

Other diſtinctions, as that of *adequate* and *inadequate*,

inadequate, as requiring no explanation, I omit.

170. Some Modern philoſophers aſſert,* that a "cauſe cannot be defined to be any "thing but ſuch previous circumſtances as "are conſtantly followed by a certain effect; "the conſtancy of reſult making us conclude, "that there muſt be a ſufficient reaſon in the "nature of things, why it ſhould be produced "in thoſe circumſtances." How vague and inconſiſtent! it is not then in the previous circumſtances that the reaſon of its production exiſts, but in the nature of things: *of things*, how vague! What things? What means *nature*? That nothing can exiſt without a cauſe; and that conſequently every being muſt be connected with its cauſe, is evident: but the nature of no being whatſoever is in *reality* connected with an effect, or affords a ſufficient reaſon for its exiſtence, but that of the Divine Being, whoſe power is infinite; and that of mind, to which the powers of volition and of judgment are eſſential: but *apparently*, and in conſequence of the Divine laws, the power of producing an effect in

* Prieſtly on Philoſ. Neceſs. p. 11. Mem. Berlin. 1761.

predetermined

predetermined circumſtances, is alſo lodged in bodies, as already ſaid: yet it can be diſcovered only by experience, or by reaſoning, on the neceſſary reſults from the known eſſential properties of thoſe bodies, and the general economy of nature in certain circumſtances, where an oppoſition betwixt thoſe properties, and certain modifications, or ſtates, of other bodies take place. Mere conſtancy of ſucceſſion never evinces the cauſality of the object ſucceeded to, though the preſence or application of that object are neceſſary; thus, though days have ever more ſucceeded nights, no one imagines night to be the cauſe of day; though efferveſcence conſtantly precedes the ſolution of limeſtones in acids, yet it has never been conſidered as the cauſe, but rather as the *ſign* of the ſolution.

Axioms relative to cauſes.

171. Firſt, no being or modification, (except the Supreme) can exiſt without an efficient cauſe.*

An infinite ſeries of being (if ſuch a ſeries

* See my Diſſertation on Hume's Paradoxes. Mem. R. Iriſh Academy.

were

were poſſible,) whereof each had no cauſe, but that which immediately preceded it, involves a contradiction; for, firſt, it would by the ſuppoſition be cauſed, and conſequently it would be an infinite ſeries of *effects*; and, ſecondly, this ſeries of effects would, conſidered in its totality, have no cauſe; ſo that the whole, which is nothing elſe but a collection of the parts of which it conſiſts, would have a particular property, which none of the parts poſſeſs: as well may a *collection* of blind men ſee, though *each* be ſuppoſed blind.

172. Secondly, all cauſes precede their effects; for, if they coexiſted with their effects, they could not be ſaid to give them exiſtence.*

173. Thirdly, cauſes may in ſome meaſure be traced from their effects; for, as no being can be its own cauſe, every being preſuppoſes the power of producing it in ſome other being: whether that in which ſuch power exiſts be the cauſe of a given effect, circumſtances muſt determine; and if that power be lodged in more than one, which of them has acted?

If many beings poſſeſs this power, that being may be deemed the cauſe whoſe known

* See my Eſſay on Duration, Mem. R. Iriſh Academy.

effects

effects in the given circumſtances are moſt analogous to thoſe whoſe cauſe is ſought, or of which ſome traces are diſcovered: thus, moſt metals being ſoluble in various acids, to diſcover which acid has effected a given ſolution of a given metal, among other methods which need not be mentioned here, if, in diſtilling the ſolution in a ſtrong heat, ſulphur is found ſublimed, the vitriolic acid is known to be the cauſe of the ſolution. Moral cauſes alſo, whether efficient, occaſional, or exciting, are frequently diſcoverable by analogy with the characters, circumſtances, and probable motives of the agents capable of producing them; and ſtill better by the traces of their action, that is, the impreſſion on the ſenſes of thoſe that were preſent; that is, on the ſenſes of the witneſſes, ſuppoſing theſe duly qualified to atteſt.

174. Fourthly, from cauſes known to exiſt, ſuitable effects may alſo be deduced, in appropriate circumſtances: upon this obſervation all voluntary actions are founded: and hence,

175. Fifthly, ſimilar cauſes are deemed to produce ſimilar effects on ſimilar ſubjects, and in ſimilar circumſtances; but the ſimilarity in

in each caſe, if not entire, muſt be ſuch as to contain nothing incompatible with the production of the effect.

176. Sixthly, diſſimilar, nay contrary cauſes, frequently produce effects in many reſpects ſimilar: thus the nitric acid, and alſo mercury, equally diſſolve ſilver: thus alcohol may be produced by extreme cold, as well as by heat, and on living animal ſubſtances both impreſs ſenſations very ſimilar; hence Virgil ſays, *frigus penetrabile adurit.*

177. Seventhly, the primary cauſe of a ſeries of conſecutive effects neceſſarily reſulting from the firſt, muſt be deemed the cauſe of all of them; and hence the ſaying *qui eſt cauſa cauſæ eſt cauſa cauſati.*

178. *Manner.* The preparation, mancipulation, contrivance, diſpoſition of the ſubject, and the application of the inſtruments, machinery, &c. neceſſary or uſeful in the production of the effect, is called the *manner* in which it is produced. Thus the grinding and ſifting of wheat, its reduction to dough, and finally baking, denote the manner in which bread is formed. Some effects are immediate, as *creation*, and therefore require no

manner

manner, ſo that it were ridiculous to aſk *how* they were produced; but to produce natural effects, the Supreme Being has thought proper to appoint preparatory proceſſes leading to their exiſtence, which proceſſes are called the *manner* of their production.

So alſo the actions of the human mind, as volitions, and judicial aſſent or diſſent, are immediate; but to attain certain ends, preparation, inſtruction, method, attention, and deliberation, are neceſſary.

179. *Principle* denotes the original ſource, or cauſe, or a primary truth to which certain effects may be aſcribed, or from which certain truths may be deduced.

180. A *ſcientific principle* is that from which the phænomena or the operations relative to that ſcience may be deduced and explained; if not entirely, at leaſt in part, for there may be many principles.

To explain a phænomenon, is to aſſign, in intelligible terms, a cauſe that can produce it, or a law to which it conforms, and of which it is a conſequence.

181. A *Phyſical principle* is that which by its activity is the primary cauſe of ſubſequent

quent effects reſulting ſucceſſively from intermediate cauſes. So the weights of a clock are the principle of its motion, for they pull round the main wheel; this by its teeth catches hold of the next wheel, and ſo on. Attraction and repulſion are alſo primary phyſical principles, as certain affinities are of chymical phænomena.

182. So a *moral principle* is that from which many moral effects are deducible, as *ſelf-love, ſympathy, moral ſenſe*, &c.

183. A *metaphyſical principle* is that from which metaphyſical truths are deducible.

184. The *ſubject of various modifications* is alſo frequently called a principle; thus the ſoul is often called the inviſible principle of our thoughts and actions: thus, flax being firſt decorticated, then ſpun, then wove, is the fundamental principle of linen, and, after other operations, of paper.

185. *Chance* does not denote the abſence of a cauſe, but merely the unknown cauſe of an event, or the undeſigned effect of a known cauſe.

SECT. VII.

RELATIONS, ORDER, CONNECTION, NECESSITY, CONTINGENCY, LIBERTY, VOLUNTARY, SPONTANEITY.

186. The definition of a relation, its ſubject, foundation, and term, have already been explained: Logick, Vol. I. p. 131.

187. Firſt, it is impoſſible to have a notion of a relation, without having any notion of the things related; for a relation exiſting only in the mind, the mind cannot refer one thing to the other without knowing either, and the reaſon or foundation on which the reference is founded: ſo Locke, Lib. i. C. iv. ſec. 6.

188. Secondly, a ſubject is referred to its term as to its correlative, and not as abſolutely conſidered: thus the relation of a father to his ſon is founded on his being his *ſon*; and not as being John or James, &c. So ſubjects are related to their king, as *king*, and not as George or Edward, &c. and *vice verſa*.

189. Thirdly, the ſame ſubject may bear oppoſite relations to different terms: thus a

perſon may be older than one man, and younger than another.

190. Fourthly, ſome ſubjects of a relation have no correlative name in ſome languages, to which the relation may be referred, as *concubine*; but the term to which it is referred is underſtood to exiſt.

191. Fifthly, there is no one thing ſoever, whether idea, ſubſtance, mode, or relation, which may not be conſidered in reference to other things; that is, as the ſubject of a relation.—Locke, B. ii. C. xxv. ſec. 7.

192. Moſt relations may be arranged under two general heads, and their oppoſites. Theſe are,

Similitude.	*Diſſimilitude.*	*Connexion.*	*Diſconnexion.*
Identity.	Diverſity.	Proximity	Incoherency.
Equality.	Inequality.	in time or	Diſorder.
Proportion.	Diſproportion.	place.	Oppoſition.
Analogy.		Order.	Confuſion.
		Cauſation.	Exceſs.
		Congruency.	Defect.
		Aſſociation.	
		Succeſſion.	
		Conformity.	
		Coincidence.	
		Dependence.	

193.

193. *Order* denotes, either the gradation with which objects ſucceed each other, or an arrangement moſt agreeable to the attainment of a propoſed end.

194. *Connexion* denotes an aſſociation of things betwixt which any regular relation ſubſiſts.

194[b]. *Similitude* denotes the natural repreſentation of one thing by another: things are ſaid to be ſimilar, when the mind is in any reſpect ſo equally impreſſed by both, that one may in that reſpect miſtake one for the other.

195. *Neceſſity* denotes the certain exiſtence of an object or event, from the impoſſibility of its non-exiſtence; and as this impoſſibility may be either abſolute, or relative to the laws by which the exiſtence of events is governed, neceſſity is diſtinguiſhed into three ſorts, abſolute, phyſical, and moral.

196. *Abſolute* neceſſity is that which reſults from the utter impoſſibility of a thing being otherwiſe than it is: of this nature is the exiſtence of the Supreme Being; for as we know that all the beings with which we are acquainted have *begun* to exiſt, and could not have given exiſtence to themſelves, it is plain

that exiſtence is not eſſential to them; it were therefore impoſſible that they ſhould exiſt unleſs they received exiſtence from another being; and it were impoſſible that even this being ſhould exiſt, unleſs exiſtence were eſſential to him; and exiſtence being eſſential to him, it is impoſſible that he ſhould not exiſt, or in other words, his exiſtence is abſolutely neceſſary: this neceſſity is alſo called *metaphyſical*, as it does not relate to mere corporeal objects or events, but abſtracts from and ſoars above them to truths more univerſal; it is alſo called *mathematical*, becauſe the truths of mathematical axioms and demonſtrated propoſitions is ſo neceſſary, that their falſehood would involve a contradiction.

197. *Phyſical* neceſſity relates to corporeal nature, and denotes, firſt, the impoſſibility of the exiſtence of any object or event, otherwiſe than in conformity with the preordained laws of its exiſtence.

198. Secondly, the impoſſibility that objects or events ſhould not exiſt, when their exiſtence is agreeable to the known phyſical laws by which they are governed, conſtantly and

199. Theſe laws are known by the conſtancy of an effect in ſimilar circumſtances, and on ſimilar ſubjects.

200. Some are *general*, relating to all corporeal objects, as the law of gravitation; and theſe are perfectly known, or nearly ſo.

201. Some are *particular*, as thoſe of electricity, magnetiſm, and chymical affinities.

202. Some are imperfectly known, being ſometimes, though rarely, modified by other laws that are unknown: ſuch are thoſe of the animal economy. Hence the uſual effects of the known laws cannot be expected with abſolute certainty—they are not *neceſſary*, but highly probable.

203. Events not conformable to the known laws, owing to their modification in unknown circumſtances, are called *extraordinary*, or *prodigies*.

204. Events evidently independent of any natural laws, and repugnant to ſuch of them as are perfectly known, are called *miracles*.

205. Hence phyſical neceſſity, where it really takes place, does not admit of degrees.

205^b. If an end be neceſſary, the means re-

quiſite to obtain that end are equally neceſſary.—See Grot. on Matt. 173.

206. *Moral* neceſſity relates, firſt, to the laws by which free moral agents are governed, and of theſe there are three: firſt, that they cannot *judge* without diſcerning, or being otherwiſe ſatisfied of the exiſtence or non-exiſtence of a relation, betwixt the objects of their judgment; nor *will*, without an exciting cauſe of their volitions, that is, without a motive; ſecondly, that they do in every circumſtance prefer permanent pleaſure to permanent pain, if equally aſſured of their exiſtence.

207. Hence volitions, repugnant to theſe laws, are abſolutely impoſſible; and, on the contrary, thoſe that are conſentaneous to the inclinations of mankind, and unoppoſed by any motive, are abſolutely neceſſary.

208. Or, ſecondly, it denotes the *extreme probability* of an event that is conformable to the prejudices, habits, manners, and inclinations of mankind, even when reſiſted by oppoſite motives, whoſe truth is acknowledged; but not the *abſolute* impoſſibility of a different or an oppoſite event, in all times and

and circumſtances; for of ſuch oppoſite events, in a courſe of ages, many inſtances occur, particularly where ſuperſtition, fanaticiſm, or even true religion, prevail. Witneſs the conduct of Regulus, and the Athenian judgment: but ſuch events are juſtly deemed *extraordinary*, or *prodigious*.

209. Hence moral neceſſity, where it denotes only an extreme probability, admits of degrees.

210. *Contingency* denotes the poſſibility that an object or event may exiſt or not exiſt. Hence it requires, firſt, that a cauſe adequate to the production of its exiſtence ſhould alſo exiſt, as no being can exiſt of itſelf; and, ſecondly, that neither its conſtitution or deſtruction ſhould involve a contradiction or repugnancy, neither in itſelf, nor to any thing elſe already in exiſtence.

211. But it is not neceſſary that its exiſtence and nonexiſtence ſhould be equally poſſible, for either may be more or leſs probable or improbable; and, therefore, ſtrictly ſpeaking, it admits of degrees.

212. *Liberty* belongs to rational agents only, and denotes the mode or manner in

which they act, or have the power of acting or not acting.

213. As the power of acting (though it reſides alſo in ſome caſes in the underſtanding) is commonly denominated the faculty of *willing*, hence it is that liberty commonly relates to the mode or manner in which that power is exerciſed.

214. We muſt alſo remark, that the actions here meant are thoſe of the will itſelf, and not thoſe which it may command, as the motions of its own body, or of other bodies.

215. We have already ſaid, that the will cannot act without a motive or exciting or occaſional cauſe; for, to act, it muſt have ſome end or purpoſe in view; this we know by the ſlighteſt attention and recollection.

216 But if *only one* motive to action exiſts, we muſt act according to its direction; for by the ſuppoſition, there is no motive or reaſon to oppoſe it.

217. Liberty then, when perfect, conſiſts in the complete and equal power of accedi[ng] to, conſenting or rejecting, that is, *willing* or not *willing*, a propoſed meaſure, or of electi[ng] either of the meaſures propoſed to the min[d,]

if more than one be preſented to its conſideration.

218. Such liberty reſults from an exact equality of the motives that urge to, or diſſuade from, a propoſed reſolution. Actions proceeding from ſuch a power are ſaid to be perfectly free.

219. Motives then, to contrary volitions, either both attract to oppoſite or different objects (as pleaſure and virtue, in the choice of Hercules), or ſome allure to, and others diſſuade from, the ſame object or ſpecies of action. In each caſe the mind, on a joint view and conſideration of each, muſt be perfectly indifferent to either, elſe the determination to reject the one, and embrace the other, cannot be ſaid to be perfectly free.

220. I know that many in ſuch a caſe conſider a volition to be impoſſible, and quote the fable of Buridanus's aſs; but they are deceived. In inanimate bodies, urged by equal oppoſite forces, motion indeed would be impoſſible, becauſe the principle of action is external, and the external forces counterbalance each other; but in the mind the power of acting is internal, and as the motives propoſe

poſe ſignal advantages, it may adhere to that propoſed by either. If the choice were offered me of two rouleaus of 100 guineas each, placed on a table at equal diſtances from me, I ſurely would not heſitate, much leſs abſtain from, taking either, well knowing that one was as good as the other.

221. In proportion as the motives to one ſide of a propoſed choice are leſs urgent, or appear leſs weighty than thoſe on the other, the liberty or freedom of the will is more imperfect; nay, if the motives on one ſide are unoppoſed by any on the other, then, indeed, the will is neceſſitated.

222. An oppoſition of motives being ſuppoſed, the moſt urgent (that is, thoſe whoſe rejection is attended with moſt uneaſineſs,) are either conſonant to the dictates of the underſtanding, or the ſuggeſtions of the moral ſenſe; and then the acts of the will, grounded upon them, are wiſe and laudable; or they are repugnant to the dictates of either, and then they are fooliſh or criminal.

223. But motives the moſt urgent, ſuch as the inclinations, paſſions, and deſires of mankind, are not always the moſt prevalent; tho[illegible]e

that are leſs urgent are ſometimes moſt perſuaſive. Actions juſt and proper, flowing from ſuch motives, are frequently the moſt meritorious; ſuch as the ſuffering of the martyrs. And, on the contrary, ſuch actions as are unjuſt and wicked, are moſt criminal and flagitious; ſuch as the refuſal of a tortured criminal to diſcover his accomplices. In ſuch caſes the freedom of the will, though manifeſtly impaired, is not extinct.

224. Hence we ſee why the greater the temptation, that is, the more urgent the motive to commit a crime, the leſs criminal is its commiſſion in the ſenſe of all mankind; and, on the contrary, the more meritorious its avoidance. Thus, if Artaxerxes had put his mother to death, who had poiſoned his wife, and who had tortured the ſlave that ſaved his life, he would indeed have been criminal; but infinitely leſs ſo than Nero, who murdered his mother without ſuch provocation. So the conduct of David, in reiteratedly ſparing the life of Saul, who ſo often had lain in wait for his, was highly meritorious.

225. And, on the contrary, the more inſignificant, wanton, or extravagant, the motive

to

to a crime, the more flagitious is its commiſſion. Thus the crime of a French nobleman, who ſhot a ſlater mounting a ladder, to ſhew he could ſhoot flying, was more atrocious than that of a common murderer.

226. Hence it is plain, that motives are barely the occaſional and exciting, not the efficient, cauſes of our volitions; for if they were, the moſt urgent would always be obeyed. Neceſſarians think that the motives yielded to muſt have been the ſtrongeſt, which is manifeſtly begging the queſtion: this, however, they ſay, is judging of cauſes by their effects, a mode of reaſoning indeed perfectly juſt in phyſics, but not ſo in morals; for experience ſhews that the motives of ſelf-love, ſelf-intereſt, ambition, and the gratification of paſſions; gratitude, pity, &c. are by far the moſt urgent, and that a line of conduct conformable to their dictates is by far the moſt probable; and yet they are ſometimes reſiſted, even when unoppoſed by motives equally urgent. Neceſſarians reaſon juſt as the vulgar do, that the moſt ſucceſsful general is always the moſt able; yet the beſt judges are now agreed, that Hannibal, though de-

feated, was at leaſt as able a commander as Scipio, who defeated him.

227. The definitions of liberty, given by neceſſarians, are inaccurate. According to Hobbes, "liberty is the abſence of all impe- "diments to action, that are not contained in "the nature and intrinſic quality of the agent. "So we ſay, he that is tied wants the liberty "to go, becauſe the impediment is not in "him, but in his bands; whereas, we ſay not "ſo of him that is ſick or lame, becauſe the "impediment is in himſelf." I ſhould, however, judge, that a perſon, either very ſick or very lame, may be ſaid not to have the liberty of going, for he has not the power; beſides, by action, volition ſhould be underſtood.

228. Others define liberty to be the power of *doing* what one pleaſes.* This definition alſo is inaccurate; for the queſtion relates to the liberty of *willing*, and not merely of acting. "Every one (it is ſaid) may turn his "thoughts to what ſubject he pleaſes." *To what ſubject he pleaſes* means, I ſuppoſe, *to what ſubject he chuſes*. Now, in the neceſſa-

* Prieſtley on Neceſſity, p. 2.

rian

rian ſyſtem, *may* ſignifies *muſt*: his election is neceſſary, and therefore he ſhould ſay, every one muſt turn his thoughts to what ſubject he *muſt* pleaſe, or chuſe to turn them to.

229. Neither is Mr. Locke's notion of liberty exactly correct. He tells us,* that "liberty is the power of an agent to do or "forbear any particular action, according to "the determination or thought of the mind, "whereby either of them is preferred to the "other." But the point in debate is not, whether the agent has the power of acting, or not acting, according to the determination of his will; for every one knows that power may not exiſt, as many actions are impoſſible: a man in chains cannot walk, nor can any man fly, let his mind determine as it may. But the point in queſtion here is, whether he *can prefer* acting to forbearing to act, or the contrary: this the aſſertors of liberty affirm, with the limitations already mentioned, and the neceſſarians deny.

230. He alſo thinks,† that agents alone can be ſaid to be free; and that it is ridiculous

* B. ii. C. xxi. ſec. 8.

† Sec. 14 and 16, B. ii. cap. xxi.

to

to aſk, whether the will be free or not, as the will is only a power, and liberty is alſo a power, which cannot be the modification or power of another power; but he forgets that a power may be exerted, either neceſſarily or freely, and liberty is not a power diſtinct from that of the will, but rather a modification, or particular mode, of its action. A man in extreme pain, not urged by any oppoſite motive, neceſſarily wills its ceſſation; and, conſequently, both freedom and neceſſity are applicable, in different circumſtances, to that faculty, or power of acting of the agent, to which a certain claſs of objects is referred, and which is called the will.

231. An action is called *ſpontaneous* when it ariſes from mechanical, inſtinctive, or other animal or chymical cauſes, without any determination of the will to produce it: as growth, nutrition, circulation of the blood, &c.

232. A *voluntary act* is that which is performed with a ſufficient knowledge of its nature and conſequences, and not extorted by a well grounded fear of an illegal infliction of corporeal puniſhment, loſs of life or limb, impriſonment, or violation of property. Such actions

actions muſt be deemed voluntary, though often accompanied with reluctance: as when a man ſells his eſtate to preſerve the liberty of his perſon, &c.; or conſents to the loſs of a limb to ſave his life; or caſts his property into the ſea to avoid a ſhipwreck.

233. An *involuntary* act is that which is derived from, or accompanied with, an inſufficient knowledge of its nature and circumſtances, or conſequences, (ſee Grotius on St. Matt. 255); or from a well-grounded apprehenſion of danger to life, limb, or property, illegally or fraudulently impreſſed: as the delivery of money to a robber, for fear of death or other bodily miſchief. Actions of the former kind, ariſing from ignorance, may be criminal, when the ignorance itſelf is culpable; but the latter are ſo, only when death ſhould be preferred to the propoſed act. In the firſt caſe the action is involuntary; in the ſecond it is mixt, being partly voluntary and partly involuntary.

SECT. VIII.

SPACE AND DURATION.

234. Nothing has contributed more to the growth and diffuſion of that general ſcepticiſm, ſo prevalent in the laſt century, with reſpect to all queſtions that cannot be decided by the immediate teſtimony of the ſenſes, than the inextricable difficulties that were ſuppoſed to attend the nature of objects moſt familiar to all mankind, and unheſitantly conceived to be thoroughly underſtood; for it ſeemed natural to conclude, that if, upon examination, we find an exact notion, even of theſe, impoſſible to be attained, we have reaſon to ſuppoſe, that other objects, with which we are not ſo well acquainted, are placed beyond the reach of human faculties: thus argued Bayle (Zenon), thus Hume reaſoned. Now, certainly, no objects are more familiar to us than ſpace and duration; and, in perplexing the notions of theſe, they have exhauſted the whole force of their ſubtlety. If, on the contrary, it can be ſhewn, that the notions of theſe are perfectly plain and intelligible, in

the ſenſe in which they are univerſally taken; and that the abſurdities, that have occurred in explaining them, might eaſily be avoided, by only adhering to their known ſignification, one ſtumbling-block in metaphyſical inquiries will be removed.* This, then, is the purport of the preſent paper. But, moreover, to ſhew the neceſſity of inveſtigating ſubjects, which ſeemingly require no diſcuſſion, the difficulties that occurred on conſidering theſe, with the various opinions they ſuggeſted, muſt previouſly be ſtated.

235. The different ſyſtems of the Epicureans and Peripatetics, gave the firſt occaſion to the controverſies concerning the nature of ſpace. The Epicureans admitted a vacuum, or empty ſpace, as one of their firſt principles. The Peripatetics allowed, indeed, the poſſibility of a vacuum, but denied its exiſtence. Des Cartes, in examining the queſtion, denied even its poſſibility; aſſerting, that ſpace neceſſarily implies extenſion: but a mere nothing, or nonentity, ſuch as a perfect vacuum,

* It is ſtrange, that ſo eminent a metaphyſician as Condillac ſhould ſay, that we know nothing of the nature of ſpace or duration. Art. de Penſer, p. 115, in 12mo.

if

if it exiſted, muſt be allowed to be, can have no properties, and, conſequently, cannot be extended; for it would be abſurd to ſay, for inſtance, ſo many *acres of nothing*. His diſciples further inſiſted, that ſpace muſt be either a ſubſtance, or the modification of ſome ſubſtance, as, between theſe, nothing intermediate can be ſuppoſed to exiſt: but *ſpace* is not a mode of any ſubſtance, therefore it muſt itſelf be a ſubſtance, and, conſequently, can never be ſuppoſed empty.

236. To evade the force of this reaſoning, the Peripatetics and Epicureans made different replies. The former ſaid, that empty *ſpace* is a mere capacity or poſſibility of receiving bodies, and that its extenſion is only the poſſible extenſion of ſuch bodies as may be placed in it. But this anſwer was ſoon found to be unſatisfactory; for the ſpace, *actually* exiſting between two diſtant bodies, would remain unaltered, even if all the intervening bodies were annihilated. Moreover, the capacity of receiving bodies is merely the conſequence of the vacuity of ſpace, and not ſpace itſelf. The Epicureans, as Gaſſendi and Bernier, followed by Le Clerc, ſuppoſed it to be a

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peculiar kind of being, which poſſeſſed no other property but extenſion. It was not, therefore, a ſpiritual ſubſtance, this not being extended, nor a material being, as it poſſeſſed no ſolidity, but a being *ſui generis*. This opinion appearing as untenable as the foregoing, from whence it differed only by being more fully explained, was embraced by no one elſe.

237. David de Rodon, an eminent Calviniſt profeſſor at Niſmes, ſome time before the year 1660, and poſſibly during the life of Des Cartes, ſtruck with the abſurdity of ſuppoſing any thing real and eternal beſides God, advanced a very different opinion; as I find, by a letter from Bayle to La Coſte, 4 Bayle, Oeuvres Poſth. 845. He maintained, that ſpace was nothing elſe than the Divine immenſity. This opinion was embraced by Otto Guericke, about 1670, as Leibnitz thinks, and afterwards by the celebrated Dr. Samuel Clarke. It appears in the firſt edition of his Sermons in 1706, and more explicitly in his ſeveral replies to Dr. Joſeph Butler in 1713, and his correſpondence with the celebrated Leibnitz in 1715, as I ſhall preſently mention;

mention; and was alſo long before obſcurely hinted by many of the ſcholaſtics. In the meantime, that is, about the year 1690, Leibnitz propoſed a new ſyſtem, namely, that of Monads, or ſimple ſubſtances abſolutely unextended, but from whoſe diſpoſition or order, with reſpect to each other, the *appearance* of ſpace reſulted: a ſyſtem ſo ingenious and well connected, that for many years it met the approbation of the moſt diſtinguiſhed philoſophers in Germany, and the admiration of the reſt of Europe.

238. A few years after, Mr. Locke publiſhed his ineſtimable Eſſay on the Human Underſtanding; yet his ſentiments concerning ſpace are confuſedly, and rather inconſiſtently, ſtated. For, firſt, without giving any definition of ſpace, he divides it into ſolid and empty. He tells us, we acquire the idea of the firſt when we conceive *it* ſo taken up by a ſolid ſubſtance as to exclude all other ſolid ſubſtances, and hinder two other bodies, moving towards each other in a ſtraight line, from coming into contact with each other.—But, if we conceive two bodies at a diſtance to approach each other, without touching or diſ-

placing any ſolid thing until their ſurfaces come to meet, we thus acquire the idea of ſpace without ſolidity, or pure ſpace. Lib. II, cap. iv. ſec. 2, 3. And (ſec. 5,) he adds, "the extenſion of body being nothing but the "continuity of ſolid, ſeparable, moveable "parts, the extenſion of ſpace is that of un- "ſolid, inſeparable, and immoveable parts."—Here he plainly aſſerts, that pure ſpace is extended, and conſiſts of immoveable and inſeparable parts.

239. In his 13th chapter, he ſtates the idea of ſpace more accurately; for he ſays it is the *diſtance* between any two bodies, or between the parts of the ſame body: that, if it be conſidered only *lengthways*, without conſidering any thing elſe between, it is called *diſtance*; but, if conſidered in length, breadth, and thickneſs, it may be called *capacity*. The term *extenſion* is uſually applied to it, in what manner ſoever it is conſidered, ſec. 2 and 3. —But, in ſec. 4, he no longer conſiders ſpace as *diſtance*, but tells us, "that each different "diſtance is a different modification of ſpace." —Yet, as different diſtances are rather different relations betwixt the diſtan bodies, I

do

do not well underſtand how they can be called modifications of ſpace; modification being a term uſually applied to ſubſtances, and not to relations.

240. Sect. 16, he aſks thoſe, who inquire whether ſpace be body or ſpirit, who told them, that there could be no other being but body and ſpirit? And, if they again inquire, "whether this ſpace be a ſubſtance or an accident, he fairly tells them he does not know." From all which, it is plain, he conſidered ſimple pure ſpace as ſomething really exiſting, and diſtinct from diſtance.

241. And, accordingly, ſec. 21, he ſays, "if body be not ſuppoſed infinite, which he thinks no one will affirm, he aſks, whether, if God placed a man at the extremity of corporeal beings, he could not ſtretch his hand beyond his body? If he could, then he would put his arm where there was before ſpace without body." And, chap. xvii. ſec. 4, he adds, "ſo far as body reaches, ſo far no one can doubt of extenſion; and, when we are come to the utmoſt extremity of body, what is there that can ſatisfy the mind, that it is at the

" end of ſpace, when it perceives it is not?" and finally concludes, " that ſpace is in-" finite." And, ſec. 20, he denies, that the exiſtence of matter is any way neceſſary to the exiſtence of ſpace.

242. In 1713, Doctor Berkely firſt publiſhed his immortal work, on the Principles of Human Knowledge; in the cxvi § of which he aſſerts, that pure ſpace is nothing more than the poſſibility of motion, without the leaſt reſiſtance; and that, if all bodies were annihilated, there could be no motion, and, conſequently, no ſpace. And thus he ſays, (ſec. cxvii.) " we free ourſelves from that " dangerous dilemna, to which ſeveral ima-" gined themſelves reduced, to wit, of think-" ing that real ſpace is God; or elſe, that " there is ſomething beſides God, eternal, un-" created, infinite, indiviſible, immutable; " both which may juſtly be thought per-" nicious and abſurd notions." This opinion was afterwards adopted by Dr. Doddridge, in his Lectures, p. 139; and by Mr. Condillac, *Art. de Penſer*, chap. viii.

243. At the latter end of the ſame year, an anonymous writer, ſtyling himſelf a Gentleman

man of Glouceſterſhire, but thought to be Dr. Joſeph Butler, repreſented to Dr. Clarke, ſome difficulties, which had occurred to him, in the Doctor's excellent treatiſe, entitled, *a Demonſtration of the Being and Attributes of God*; for having there aſſerted, that the neceſſity of the Supreme Being muſt have exiſted *every where*, as well as always, Dr. Butler informed him he did not perceive any connexion between ubiquity and neceſſary exiſtence. Dr. Clarke replied, that he conſidered ſpace as a *mode* of the ſelf-exiſting ſubſtance; and, being evidently neceſſary itſelf, proves that the ſubſtance, of which it is a property, muſt alſo be neceſſary. Nay, he adds, that extenſion is neceſſary to the exiſtence of every being. In his third reply, he is ſtill more explicit: for he aſſerts, that all other ſubſtances are *in* ſpace, and are penetrated by it; but the ſelf-exiſting ſubſtance is not in ſpace, nor penetrated by it; but is itſelf, as if it were the *ſubſtratum* of ſpace, the ground of the exiſtence of ſpace and duration. Dr. Butler, in his fourth Letter, owns himſelf convinced of what he at firſt doubted, that a neceſſary being muſt exiſt

every

every where; and Dr. Clarke, in his anſwer to that letter, approaches much nearer to the truth than he had before done, though ſtill far from it. He ſays, "the idea of "ſpace is an abſtract or partial idea of a "certain quality or relation, which we evi- "dently ſee to be neceſſarily exiſting; and, "yet, (not being itſelf a ſubſtance,) neceſſa- "rily preſuppoſes a ſubſtance, without which "it could not exiſt."

244. In his fifth Letter, Dr. Butler denies, that ſpace can be ſuppoſed a property or modification of the Divine ſubſtance; for, if that were annihilated, ſtill the idea of ſpace would remain; and owns himſelf at a loſs to define the nature of ſpace. To which Dr. Clarke replies, "that, ſince ſpace neceſſarily "remains, even after it is ſuppoſed to be ta- "ken away, and is not itſelf a ſubſtance, as "it is plain it is not, then the ſubſtance, on "whoſe exiſtence it depends, will neceſſarily "remain alſo, even after it is ſuppoſed to be "taken away; which ſhews the ſuppoſition to "be impoſſible and contradictory."

245. Thus that correſpondence ended. But, in an anſwer to another Gentleman, Dr. Clarke

Clarke aſſerts, that infinite ſpace is infinite extenſion; and, that to ſuppoſe it finite is an expreſs contradiction. And, that "they "who remove the idea of infinity, by ſuppoſing ſpace to be nothing but a relation "between two bodies, are guilty of an abſurdity, by ſuppoſing that which is nothing, "to have *real* quantities; for the ſpace betwixt two bodies, is always unalterably juſt "what it was; and has the ſame dimenſions, "quantity, and figure, whether theſe, or any "other bodies, be there, or any where elſe, "or not at all."—To ſet bounds to ſpace, is to ſuppoſe it bounded by ſomething which itſelf takes up ſpace; and that is a contradiction.

246. But the Doctor was engaged in a much more animated correſpondence, on the nature of ſpace, ſhortly after. It aroſe on the following occaſion. Leibnitz, irritated by the deciſion of the Royal Society of London, in favour of Newton, on the diſputed queſtion, whether he or Sir Iſaac was the diſcoverer of the differential or fluxionary calculus, criticiſed, with much aſperity, ſome parts of Sir Iſaac's philoſophy, and particularly

cularly his ſentiments on the nature of ſpace. This cenſure he conveyed in a letter to the Princeſs Caroline of Wales, afterwards queen-conſort of George II. who communicated it to Dr. Clarke, and engaged him to anſwer it. His anſwer ſhe tranſmitted to Leibnitz, and became the medium of the correſpondence that enſued betwixt theſe two great metaphyſicians. Of their ſucceſſive anſwers and replies, I ſhall give a brief extract.

247. *Clarke.* Space, finite or infinite, is abſolutely indiviſible, even in thought. To imagine its parts moved from each other, is to imagine them moved out of themſelves; and yet ſpace is not a mere point.

248. *Leibnitz.* Space cannot be a real, abſolute being, otherwiſe it ſhould be eternal and infinite. But, as it conſiſts of parts, it is not a thing that can belong to God. Space is ſomething merely relative, as time is; it is the order of co-exiſting things; as time is of ſucceſſive things. If ſpace were an abſolute being, ſomething would have happened, for which no ſufficient reaſon can be aſſigned: for ſpace is abſolutely uniform; and,

and, without the things placed in it, one does not differ from another: therefore there can be no reaſon, why God ſhould have placed bodies, in ſpace, after one particular manner, and not otherwiſe. But if ſpace is nothing elſe, but that *order* or *relation*, and *nothing at all* without bodies, but the *poſſibility* of placing them; then, two ſtates, to wit, that which now is, and another, ſuppoſed the the reverſe, would not at all differ from each other. Their difference would only be found, in our chimerical ſuppoſition of the reality of ſpace: but, in truth, one would be exactly the ſame as the other; they being abſolutely *indiſcernible* (undiſtinguiſhable), and, conſequently, leaving no room to inquire for the reaſon of the preference of one to the other.

249. *Clarke.* Undoubtedly, nothing happens without a ſufficient reaſon, why it *is*, rather than *not*; why thus, rather than otherwiſe: but, in things perfectly indifferent, *mere will* is that ſufficient reaſon; as, in the preſent inſtance, why matter was created in one place, rather than in another; all places being originally alike. And the caſe is the ſame, even though ſpace were nothing real, but

but only the mere order of bodies: for it would ſtill be different, whether three equal particles ſhould be placed in the order a, b, c, or in the order b, a, c; for different ſpaces are equally diſtinct, though perfectly alike. Beſides, if ſpace were nothing real, but the mere order of bodies, it would follow, that, if the earth, ſun, and moon, had been placed where the remoteſt fixed ſtars now are, and in the ſame order and diſtance, with regard to one another, as they now are, they would then be in the ſame place too as they are now; which is an evident contradiction.

250. Space is not a being, an eternal and infinite being; but the property, or conſequence, of a Being, eternal and infinite. Infinite ſpace is immenſity, but immenſity is not God. Infinite ſpace is *one*, abſolutely and eſſentially indiviſible. To ſuppoſe it parted, is a contradiction in terms, as there muſt be ſpace in the partition itſelf; which is to ſuppoſe it parted, and not parted, at the ſame time. The immenſity, or omnipreſence of God, is no more a diviſion of his ſubſtance into parts, than his duration is a diviſion of his exiſtence into parts. There is no difficulty here,

here, but from the figurative abuſe of the word *parts*.

251. If ſpace were nothing but the order of co-exiſting things, it would follow, that if God ſhould move, in a ſtraight line, the whole material world, with any degree of velocity ſoever, yet it would ſtill continue in the ſame place, and nothing would receive a ſhock on the ſudden ſtopping of the motion.—Further, ſpace is a *quantity*, which order and ſituation are not.

252. To argue, that, becauſe ſpace is uniform, and one part does not differ from another, therefore, bodies created in one place, if they had been created in another, ſuppoſing them to keep the ſame ſituation with regard to each other, would ſtill be in the ſame place as before, is a manifeſt contradiction.

253. *Leibnitz.* To ſuppoſe two things indiſcernible, is to ſuppoſe the ſame thing under two names; therefore, to ſuppoſe that the univerſe could have had, at firſt, another poſition, or place, than that which it actually had; and yet that all the parts ſhould have had the ſame ſituation among themſelves, as that which they actually had; ſuch a ſuppoſition

poſition is an impoſſible fiction.—If ſpace be a property, it muſt be the property of ſome ſubſtance; but of what ſubſtance will bounded empty ſpace be the property?

254. If infinite ſpace be immenſity, finite ſpace will be the oppoſite to immenſity; it will be menſurability, or limited extenſion. Now, extenſion muſt be the affection of ſomething extended: but, if that ſpace be empty, it will be an attribute without a ſubject; an extenſion without any thing extended.

255. If ſpace be an abſolute reality, far from being a property oppoſed to ſubſtance, it will have a greater reality than ſubſtances themſelves. God cannot deſtroy it, nor even change it. It will be immenſe, immutable, and eternal.—To ſay, that God can cauſe the whole univerſe to move forward in a right line, or any other line, without making any other alteration in it, is a chimerical ſuppoſition: for two ſtates, indiſcernible from each other, are the ſame ſtate; and, conſequently, it is a change without any change.

256. *Clarke.* Two things, by being exactly alike, do not ceaſe to be *two:* the parts of time

time are exactly alike, yet two inſtants are not the ſame inſtant, nor are they two names of the ſame inſtant.

257. Extramundane ſpace (if the world be finite) is not imaginary.

258. Space, void of body, is the property of an incorporeal ſubſtance. It is not bounded by bodies, but exiſts equally within and without bodies. It is not encloſed between bodies; but bodies, exiſting in unbounded ſpace, are themſelves only terminated by their own dimenſions. Void ſpace is not an attribute, without a ſubject; for God is certainly preſent, and poſſibly many other ſubſtances, which are not matter. Parts, in the corporeal ſenſe of the word, are ſeparable: but infinite ſpace, though it may, by us, be *partially* apprehended, that is, may in our imagination be conceived, as compoſed of parts; yet theſe parts, (improperly ſo called,) being eſſentially indiſcerptible and immoveable, are not partible, without an expreſs contradiction in terms.

259. If the world be finite, it is moveable by the power of God. Two places, though exactly alike, are not the ſame place: nor is

the motion or reſt of the univerſe the ſame ſtate, any more than the motion or reſt of a ſhip is the ſame ſtate, becauſe a man ſhut up in the cabin, perceives it not; but, upon a ſudden ſtop, it would have other real effects. Space is the place of all things, and of all ideas; as duration is the duration of all things, and of all ideas.

260. *Leibnitz.* The parts of *time* or *place*, conſidered in themſelves, are ideal things, and therefore perfectly reſemble one another, like two abſtract units; but it is not ſo with two concrete units, or two real times, or two ſpaces filled up, that is, truly actual.

261. If ſpace be the property of the ſubſtance which is in ſpace, the ſame ſpace will, ſometimes, be the property of one body, and ſometimes of another. If the author deny, that limited ſpace is a property of limited things, he muſt alſo deny, that infinite ſpace is a property of an infinite thing.

262. Spaces are ſometimes empty, and ſometimes filled up; therefore, there will be, in the eſſence of God, parts ſometimes empty, and ſometimes full, and, conſequently, liable to a perpetual change.

263.

263. God's immenſity makes him actually preſent in all ſpaces; but, now, if God is in ſpace, how can it be ſaid, that ſpace is in God? We have often heard, that a property is in its ſubject; but never, that a ſubject is in its property.

264. The author departs from the received ſenſe of words; maintaining, that ſpace has no parts, becauſe its parts are not ſeparable. But they may be aſſigned in ſpace, either by the bodies that are in it, or by lines and ſurfaces, drawn and deſcribed in it.

265. A man in a ſhip may not perceive its motion. The reality of motion does not depend on its being obſerved; but it does on the poſſibility of its being obſerved. There can be no motion, where no change can be obſerved.

266. As to the objection, that ſpace is a quantity, and that ſituation and order are not ſo; I anſwer, that order has its quantity: there is diſtance, there is interval. Relative things have their quantity, as well as abſolute ones; for inſtance, ratios, or proportions.

267. Space is not the place of all things, for it is not the place of God; nor can I ſee

how it can be ſaid to be the place of ideas, for ideas are in the mind.

268. *Clarke.* It was affirmed, that the motion of the univerſe would produce no change at all: yet no anſwer was given to the argument, that a ſudden increaſe, or ceſſation of the motion of the whole, would give a ſenſible ſhock to all the parts. And no way is ſhewn to avoid this abſurd conſequence, that the mobility of one body depends on the exiſtence of other bodies.

269. The ſpace occupied by a body is not the extenſion of the body; but the extended body exiſts in that ſpace. There is no ſuch thing, in reality, as bounded ſpace: we only imagine, or fix our attention on what part we pleaſe. It does not paſs from ſubject to ſubject, but is always, invariably, the immenſity of one and the ſame *immenſum.* God ſuffers no change by the variety and changeableneſs of things; as St. Paul ſays, Acts, xvii. 28. *in him all things move,* and have their being.

270. God does not exiſt in ſpace, but his exiſtence cauſes ſpace. Space is not abſolutely nothing; for of nothing there is no

quantity, no dimenſions, no properties. Nor is it a mere idea, for no idea of ſpace can be framed larger than finite. And yet reaſon demonſtrates, that it is a contradiction that ſpace ſhould not be actually infinite. Nor is it a bare relation of one thing to another, ariſing from their ſituation or order; becauſe ſpace is a quantity, which relations (ſuch as ſituation and order) are not.

271. If it were true, that ratios and proportions were quantities, yet it would not follow, that ſituation and order, which are relations of a different kind, would be quantities alſo. But, ſecondly, proportions are not quantities, but the proportions of quantities. A proportion is not a greater or leſs quantity of compariſon or relation, but the compariſon of a greater or leſſer quantity. Space is the place of ideas, becauſe it is the place of the ſubſtances themſelves, in whoſe underſtandings ideas exiſt.

272. Death prevented Leibnitz from replying to theſe laſt paragraphs; but the objections they contain were replied to, by Lewis Philip Thummigius, in 1722. I have not as yet been able to procure his annotations.

273. In England this controverſy was again revived, in 1731, by Dr. Law, late Biſhop of Carliſle, in his notes on Archbiſhop King's Eſſays on the Origin of Evil, who denied the reality of ſpace; and was ſoon after anſwered (as is ſuppoſed) by Dr. Gregory Sharpe, who ſupported Dr. Clarke's opinion. This anſwer Dr. Law endeavoured to invalidate, in his notes to a ſecond edition of King's Eſſay; and to his objections Sharpe replied.

274. The new combatants treated this ſubject in a manner ſomewhat different from the preceding. Of this I ſhall now give a ſummary view.

275. *Law.* I can form no other notion of ſpace, than either, firſt, as the mere negation or abſence of matter; or, ſecondly, as the extenſion of body, abſtractedly conſidered, as ſeparate from any particular body.*

276. Of ſpace, conſidered as the abſence or negation of matter, we may have a poſitive

* He adds a third mode of conceiving it, which is not, indeed, his own, but rather Cudworth's; namely, that of a ſubject, or ſubſtratum of extenſion, *in abſtracto*. Of this, as too ſubtile, and ſcarcely intelligible, I ſhall take no notice.

idea,

idea, as Mr. Locke has fully ſhewn, (B. ii. C. viii. ſec. 4, 5.) as well as of ſilence, darkneſs, and many other privations. But, to argue from ſuch an idea, that ſpace is ſomething external, and has a real exiſtence, is as little reaſonable as to ſay, that, becauſe we have an idea of darkneſs different from that of light, therefore darkneſs muſt be ſomething poſitive, and has as real an exiſtence as light has.

277. To ſay that ſpace muſt have exiſtence, becauſe it has ſome properties; for inſtance, *penetrability*, or the capacity of receiving bodies; ſeems to me the ſame as to ſay, that ſilence muſt be ſomething, becauſe it has the property of admitting ſound.

278. To attribute extenſion or parts to ſpace, according to the firſt notion given of it, would be the ſame as to talk of the extenſion or parts of *abſence*, or any other privation.

279. *Sharpe.* To ſuppoſe that ſpace is nothing but the abſence of matter, is abſurd; for if we ſuppoſe two walls not to touch one another, there muſt neceſſarily be ſomething between them, otherwiſe there would be no

difference between touching and not touching.

280. Whatever is indued with properties muſt actually exiſt. Now ſpace has the property, or capacity, of receiving all bodies. Darkneſs, abſtractedly conſidered, has not the property of admitting light, nor ſilence that of admitting ſound; but darkneſs is rather that part of ſpace that is free from light.

281. Thus far the debate was intelligibly carried on, and ſome new matter advanced. The remainder conſiſts chiefly of a repetition of the arguments already adduced in the Leibnitzian correſpondence, and therefore requires no further notice.

282. We may now ſtate the true notion of ſpace, which is ſo obvious, that it is ſurpriſing it ſhould have eſcaped the notice of theſe profound metaphyſicians.

283. Space is nothing more or leſs than the relation of two or more diſtant bodies to each other, or of the diſtant parts of the ſame body to each other.

284. All relations are merely mental, but the objects related are real. The foundation

of

of this relation is the ſtandard extenſion, or the number of ſuch extenſions, as inches, feet, miles, &c. as we find or conceive neceſſary to reach from one body to the other. Thus all that can with truth be affirmed of ſpace may clearly be conceived.

285. Its primary notion is not the capacity of receiving bodies; this is merely a conſequence inferred from diſtance: in any other point of view this capacity is merely fictitious. Otherwiſe, before any body was created, a capacity for receiving bodies exiſted; that is, when nothing whatſoever exiſted. As well might it be ſaid, that a capacity of receiving ſpirits exiſted before any ſpirit was created. From what principle this capacity is inferred will preſently be ſeen.

286. The notion of *diſtance* is originally acquired through the ſenſe of feeling. By the repetition of tactile ſenſations, from one part of the body to another, we gain the notion of *extenſion*, which conſiſts in nothing elſe than in the number and continuity of tactile ſenſations, either perceived, or conceived to be perceptible, betwixt two or more objects. The difference between the firſt and laſt

laſt of theſe ſenſations is what is called *diſtance*. Neither the knowledge of diſtance, nor conſequently that of extenſion, is originally gained by the ſight, but gradually learned by experience of the connexion betwixt diſtant objects, previouſly known by tact and viſual appearances, and the motion and feelings of the eye itſelf; as Dr. Berkley has clearly ſhewn, in his admirable Eſſay on Viſion, and has been amply proved by the ſubſequent experiments of Dr. Cheſelden.* From this connexion it happens, that the different viſible appearances of near and diſtant bodies conſtantly ſuggeſt the idea of extenſion, as ſubſiſting between them, even when a perfect vacuum is ſuppoſed: but this ſuggeſtion, not being in that caſe founded in reality, is a mere imagination. It is this imagination that ſo far impoſed on Dr. Clarke and others, as to perſuade them to think there is *ſomething* where, in fact, there is nothing: an imagination which, ariſing from an early aſſociation, cannot be got rid of, as Clarke

* Some of the moſt perſpicacious of the ſcholaſtics, much deſpiſed as they are, reaſoned in the ſame manner. Maſtrius Log. 329.

and

and his correſpondent allowed, though, by an accurate inveſtigation, it is proved to be a deception.

287. When bodies are diſtant from each other there is nothing to prevent another body from being placed between them, if none be already ſo placed. This denial of any obſtacle is what is called *capacity*: it is nothing poſitive, but merely a poſſibility inferred from uncontinuous diſtance.

288. Still, it will be ſaid, that there is an interval between diſtant bodies, otherwiſe they could not be diſtant; and this interval may be meaſured, and therefore it is extended. Now this interval is what is called *ſpace*, and, conſequently, ſpace is ſomething real and extended.

289. To this argument, which comprehends every thing that can be ſaid in favour of the reality of ſpace, I anſwer, that this interval is in nothing real different from diſtance: and this latter, indeed, is meaſurable by means of a ſolid line, reaching from one of the diſtant bodies to the other, and conſequently extended. To ſuch a line meaſures may be applied; but, without conceiving ſuch a line,

a line, the meaſures would be applied to nothing, which is an evident abſurdity.

290. Hence we may infer, that, without two bodies at leaſt, there can be no diſtance, nor, conſequently, *ſpace*. Still leſs can it be ſuppoſed to exiſt, when there are no bodies at all; and, therefore, antemundane and extramundane ſpaces are merely imaginary.

291. If it be aſked, where a ſingle body would be placed, if no other body were created? I anſwer, *no where*, that is, in no place; *place* being, as Mr. Locke juſtly obſerves, (B. ii. Chap. xiii. ſec. 7,) the relation of diſtance betwixt two or more points which are conſidered as at reſt. When, therefore, there are no ſuch points, there is no place: and hence, as he remarks, (ibid. ſec. 10,) to ſay that the world is *ſomewhere*, means no more than that it does exiſt, but not its location.

292. I ſhall now take a retroſpective view of the opinions already mentioned, and obſerve how far they are juſt, and how far defective.

293. Des Cartes, yielding to the ſuggeſtions of imagination, which we need not be

be ſurpriſed at, ſince it impoſed on Newton, Clarke, and, at times, on Locke himſelf, aſſerted, that ſpace neceſſarily implied extenſion. Now extenſion is a mere abſtraction, and, conſequently, can have no real exiſtence. The term *extenſion* means no more than *extended things*, taken *ad libitum*. Of theſe, like all other abſtract terms, it is a compendious expreſſion. In this reſpect Des Cartes and his followers reaſoned more conſequentially than many ſucceeding philoſophers: for he inferred an extended thing, namely, *matter*, to exiſt wherever ſpace exiſts; and thence denied the poſſibility of a vacuum. His opinion having been long ſince ſatisfactorily refuted, and now univerſally abandoned, requires no further notice.

294. Mr. Locke ſeems at different times to have entertained different opinions of the nature of ſpace; for, after clearly ſtating, (B. ii. Chap. iv. ſec. 2, 3, and Chap. xiii.) that ſpace is the diſtance between two bodies, or between the parts of the ſame body, if the body be conſidered lengthways, (and the ſame may be ſaid of the parts of the breadth and the thickneſs, for their extremes alſo are diſ-

tant

Prieſtley juſtly obſerves, at preſent rejected by the moſt conſiſtent immaterialiſts.*

297. How God can act where he is not, is as eaſily conceived, and as juſtly admiſſible, even if inconceivable, as that he knows contingent events that are to happen in times, with which he does not at preſent co-exiſt.† As infinite knowledge is ſufficient in the one caſe, infinite power is ſufficient in the other.

298. As all the ſubſequent aſſertions of Dr. Clarke proceed from the erroneous notions juſt mentioned, no further notice need be taken of them. But as ſome of his arguments, in favour of extramundane ſpace, have an impoſing appearance, I muſt ſhew that they are deſtitute of any reaſonable ground.

* Diſquiſitions on Matter and Spirit, ſec. 6. But he was deceived in conceiving this opinion to be entirely modern; for it was the opinion of Clemens Alexandrinus, 2 Strom. circa Medium; and John Damaſcene, *De Fide*, cap. xiv. who expreſsly ſays, God is no where; and Gregory of Nyſſus, adverſus Eunom. Lib. I. denies that angels, or any intelligent beings, bear any relation to ſpace. Boetius Hebd. ſays, that incorporeal ſubſtances cannot be ſaid to be in any place. The Thomiſts alſo hold, that angels cannot be ſaid to be in any place but metaphorically. See Gonet, 342, folio.

† See Sherlock on the preſent ſtate of the Socinian Controverſy. p. 98.

299. Firſt, he takes for granted, that if this world be not infinite, it is moveable by the power of God; and, conſequently, that there are two places, one from which, and the other towards which, it may be moved.

300. To this I make this ſhort reply: that if there were but one body in exiſtence, there could be no motion; for there can be no motion, where there can be no direction, either upwards or downwards, eaſtwards or weſtwards, &c. And as, in the ſuppoſed caſe, theſe, or any other direction, exiſt only in imagination, there, and there only, motion can exiſt This even the ſcholaſtics perceived, of whom Dr. Clarke thought too contemptuouſly.

301. Further: he thinks it abſurd to ſay, that ſpace is abſolutely nothing; for of nothing there is no quantity, dimenſions, or property; nor is it a mere idea; for no idea of ſpace can be formed larger than finite, yet ſpace muſt be infinite. Nor is it a relation of one thing to another, ariſing from ſituation or order; for ſpace is a quantity, which ſituation or order are not.

302. Theſe objections ariſe from the wrong

notion he held of ſpace: its primary notion is diſtance. Diſtance implies an interval between the diſtant bodies; which interval, if filled up, is called ſolid ſpace, and, if unoccupied, is called empty ſpace: but this is nothing real and phyſical, and, conſequently, can have no dimenſion, or any property; but in proportion to the diſtance of the bodies betwixt which it intercedes, a capacity of receiving bodies of certain dimenſions is inferred to exiſt; not as any thing phyſical, but as a mere poſſibility, and, like other relations, exiſting only in the mind; but whoſe foundation (that is, the diſtant bodies) is phyſical and real. Diſtance is a relation ſuſceptible of degrees, and, conſequently, of quantity, though order and ſituation may not.

303. Grotius probably underſtood the text quoted from St. Paul as well as any man, and was certainly an unprejudiced judge in this caſe, as he was dead many years before this controverſy was ſtarted. He tells us, it is an Hebraiſm; *in him*; that is, through him, through God's beneficence we exiſt: he beſtows life and neceſſary motion, and is near

304. On Leibnitz's opinion I need not animadvert: as far as it differs from the notion here given, it is ſatisfactorily refuted by Dr. Clarke; as may be ſeen in the preceding pages.

305. Dr. Law's idea of ſpace agrees in effect with mine; yet I do not think it expreſſed with ſufficient accuracy, which ſeems to give his adverſary ſome apparent advantage.

SECT. IX.

OF DURATION, TIME, AND ETERNITY.

306. Duration is a word applied indiſcriminately to the exiſtence of created Beings, and to that of the Supreme Being; but its ſignification, when applied to the former, is widely different from that which it bears when applied to the latter. When applied to the former, it eſſentially includes a relation to ſucceſſion; when applied to the latter, it eſſentially excludes any relation to ſucceſſion. It cannot even be called *permanent* or *continued* exiſtence; for, in ſuch expreſſions, a relation

to ſucceſſion is implied, during which the exiſtence is continued, repeated, or unaltered: hence no definition common to both can be given. We muſt, therefore, ſeparately mark what it denotes in each caſe.

307. *Duration*, when applied to created Beings, denotes co-exiſtence with ſucceſſion. I ſay *co-exiſtence*, becauſe ſuch Beings are ſaid to laſt or endure only by compariſon with different parts of ſucceſſion: a Being that exiſted only for one inſtant, that is, the minuteſt portion of ſucceſſion, could not be ſaid to have had any duration. Co-exiſtence, with two inſtants at leaſt, is requiſite. Hence Locke juſtly obſerves, that we gain the idea (or rather notion) of duration, by reflecting on the ſucceſſion of our own thoughts; as during this ſucceſſion we know that we exiſt.

308. To call duration a continuation of exiſtence, is giving a definition merely verbal; as this barely denotes the ſignification of the word, and denotes the thing defined only by implication.

309. But as the ſucceſſion of our thoughts is neither regular nor conſtant, and muſt be unknown

unknown to others, a regular, uninterrupted, and uniformly varied ſucceſſion, (or, at leaſt, whoſe ſlight irregularities are diſcoverable only at diſtant periods,) has been univerſally adopted as the ſtandard; by compariſon with whoſe component parts, the duration or co-exiſtence of all other created beings is determined and meaſured.

310. It is this ſucceſſion, or co-exiſtence with it, or ſome of its periods, that forms what is called *time*; for it is ſometimes taken for the mere ſucceſſion, and ſometimes for co-exiſtence with it, or with ſome of its periods.

311. The ſtandard of ſucceſſion which moſt nations have adopted, as a meaſure of the duration of every thing elſe, is the apparent, annual, and diurnal, progreſſion of the ſun, or the different phaſes of the moon, or both. Thus years, months, and days, are obtained. The minuter portions, as hours, minutes, ſeconds, and thirds, are diſcovered by the help of various machines well known.

312. That time conſiſts of parts ultimately indiviſible, is briefly and clearly demonſtrated

by Mr. Hume *. " It is a property inſepara-
" ble from time, and which in a manner con-
" ſtitutes its eſſence, that each of its parts
" ſucceeds another, and that none of them,
" however contiguous, can ever be co-exiſtent.
" For the ſame reaſon that 1737 cannot con-
" cur with the preſent year, 1738, every mo-
" ment muſt be diſtinct from, and poſterior
" or antecedent to, another. It is certain,
" then, that time, as it exiſts, muſt be com-
" poſed of indiviſible moments: for if, in
" time, we could never arrive at an end of
" diviſion, and if each moment, as it ſucceeds
" another, were not perfectly ſingle and indi-
" viſible, there would be an infinite number of
" co-exiſting moments; which, I believe, will
" be allowed to be an arrant contradiction."
This laſt point he proves from Malezieu.
" Exiſtence, it is evident, belongs only to
" unity, and is applicable to number only on
" account of the units it contains. Twenty
" men may be ſaid to exiſt, but it is only be-
" cauſe one, two, three, &c. exiſt; and if you
" deny the exiſtence of the latter, that of the

* Treatiſe on Human Nature, Vol. I. p. 61.

" former

"former falls of courſe. It is, therefore, ab-
"ſurd to ſuppoſe any number to exiſt, and
"yet deny the exiſtence of units." But how far this diviſion may extend cannot be perfectly aſcertained. It is certain it can be carried far beyond our ideas of it, and that, by our auricular perceptions, it may be carried much further than by our ocular perceptions.

313. Thus, by the experiments of Chevalier D'Arcy,* it appears, that five or ſix diſtinct ſenſations, of a luminous body wheeled about, may be had in one ſecond. But if the velocity of the rotation, and, conſequently, the number of ſenſations, be increaſed, they ceaſe to be diſtinct, and a continued luminous circle is formed; but if an opaque coloured body be thus whirled about, a few more diſtinct ſenſations may be diſcerned. Of auricular ſenſations a far greater number may be diſtinguiſhed; for our celebrated aſtronomer, Mr. Herſchel, has diſcovered, that upwards of 160 of them may be diſcerned in a ſecond of time before they become confuſed and undiſtinguiſhable.† In general, where the

* Mem. Par. 1765.

† See Mr. Watſon's Treatiſe on Time, p. 32.

greateſt attention is not beſtowed on the ſucceſſion, particularly on that of viſual ſenſations, the memory of thoſe immediately paſt is ſo vigorous and lively, that many of them are confounded with, and appear belonging to, the preſent time, taken in the ſtricteſt ſenſe. It is on this circumſtance that many of the impoſitions of jugglers are founded.

314. The apparent length of time depends wholly on the attention paid to its ſucceſſion; it appears ſhort to thoſe whoſe attention is firmly fixed on one object; for attention to ſucceſſion, in ſuch caſe, is as much as poſſible excluded. It appears ſtill ſhorter to thoſe who ſleep without dreaming or interruption, as they are not conſcious of any ſucceſſion, and judge of the length of time, occupied by ſleep, only by the ſenſations uſually aſſociated with reſt, and the changes reſulting from ſucceſſion. So alſo, the duration of an agreeable ſtate of mind appears ſhort, even though it ſhould co-exiſt with many ſucceſſive perceptions, becauſe the pleaſure ariſing from them, and not their mere ſucceſſion, is that which chiefly occupies the attention.

315. On the other hand, when the atten-

tion

tion is not attracted to any particular perception, but wanders with indifference or diſguſt from each of the ideas that preſent themſelves, their number is increaſed; and as the mind flies rapidly from one to another, their number being thus increaſed, the time appears longer.

316. For a ſimilar, but a much ſtronger reaſon, when we are in a painful ſtate, its apparent duration is much longer than the real: its termination being every inſtant coveted, the ſucceſſion of theſe inſtants is ſtrictly attended to.

317. A learned and profound metaphyſician endeavoured to prove, that, ſtrictly ſpeaking, there is no ſuch thing as *preſent* time. The queſtion, however, is merely verbal. Undoubtedly, the preſent, taken in the ſtricteſt ſenſe, denotes an indiviſible inſtant, which can neither be called time nor duration; but it is on a perceptible aggregate of ſuch inſtants, of which the memory is as vigorous, or nearly ſo, as the ſenſation correſponding with a ſingle inſtant, that we beſtow the name of *preſent time* in the uſual ſenſe.

318. Another lively, amuſing, but eccentric

tric writer, taking it for granted, that time conſiſts only in the ſucceſſion of our ideas and actions, aſſerts, that " however theſe may " be accelerated or retarded, time will be juſt " the ſame, that is, neither ſhorter nor longer, " provided the ſame ideas and actions ſucceed " one another: as far, I mean, as it relates to " Beings ſo thinking and acting. For inſtance; " were the earth, and all the celeſtial bodies, " to perform the ſame revolutions in one day " which they now perform in a whole year; " and were all the ideas, actions, and lives of " mankind, haſtened on in the ſame propor- " tion; the period of our lives would not be " in the leaſt ſhortened, but that day would " be exactly equal to the preſent year. If, in " the ſpace of ſeventy or eighty of theſe days, " a man was born, educated, and grown up; " had ſeen his children come to maturity, " &c.; and, during this period, had all his " ideas and actions, all his enjoyments and " ſufferings, accelerated in the ſame propor- " tion; he would *not only ſeem* to himſelf, and " to all who lived in the ſame ſtate with him, " and meaſured time by the ſame ſtandard, " to have lived as long, but *actually, and in*

" *fact,*

"*fact*, would have lived as long as one who "reſides on this globe as great a number of "our preſent years."—Is not this to ſay, that actually, and in fact, ſeventy or eighty of our days are equal to ſeventy or eighty of our years? It is plain that, even if the hypotheſis were poſſible, it is only in *appearance* that an equality could ſubſiſt between them. But the hypotheſis itſelf is grounded on no analogy whatſoever; to deduce any conſequences from it is, therefore, an idle attempt. Judging from experience, we find that violent pain or anxiety, and not the mere number of ſucceeding ideas, apparently lengthens our notion of duration, or makes us think time longer than it really is. The number of ideas that occupy our imagination in reading an agreeable book, nay, the number of letters of which each line of it conſiſts, and which muſt ſucceſſively be perceived, muſt be very conſiderable; and yet the time ſeems ſhort, while we read it.*

* Whoever wiſhes for a more ample account of *Time*, will receive abundant ſatisfaction on peruſing the profound, and yet perſpicuous, treatiſe of Dr. Watſon, jun. on *Time*, Publiſhed by Johnſon in 1785.

Eternity.

Eternity.

319. *Duration,** when that of the Supreme Being is meant, denotes exiſtence exempt from any commencement or termination. This mode of exiſtence is what is commonly called *eternal.* It is incomprehenſible and inconceivable, but implies no contradiction; for the notion of exiſtence, and that of abſence of commencement, and termination, are ſo far from being contradictory to each other, that a being, ſo circumſtanced, has been demonſtrated to exiſt.—It is intelligible, though imperfectly.

320. By this definition it appears, that ſucceſſion is eſſentially excluded from the notion of eternity; for ſucceſſion neceſſarily implies a beginning, as will preſently be ſeen. And, yet, eternity cannot be ſaid to be a *perpetual inſtant,* as ſome have called it; for that is an expreſs contradiction, and even more glaringly contradictory, than the *punctum ſtans* of ſome ſcholaſtics; for *inſtant* denotes the minuteſt portion of time or duration, and *perpetual,* the greateſt duration.

* See Waterland's Queries, p. 121.

321.

321. Hence, we may learn the true import of ſome uſual expreſſions.

322. *From all eternity*; that is, without beginning.

323. *To all eternity*; that is, without ever ending.

324. Hence, alſo, we may collect, that eternity cannot be called a *quantity*; for its notion implies no magnitude whatſoever, but barely exiſtence unlimited; and, therefore, cannot be ſaid to be infinite, nor even equivalent to an infinite ſucceſſion; for ſuch a ſucceſſion is impoſſible, and purely chimerical.

325. The notion of eternity is poſitive, and not merely negative, as Locke ſuppoſes, though it includes a double negation. For notions that are commonly called negative,* or privative, are thoſe which directly import the non-exiſtence or abſence of ſomething poſitive as *darkneſs* does that of light, *ſilence* that of ſound, *death* the ceſſation of life, &c.: whereas *eternity* directly imports exiſtence; and, in-

* I have ſubſtituted the term *notions* for that of *ideas*, which Locke has employed too generally. The word idea ſhould never be uſed to denote any thing, but repreſentations of objects perceived by ſenſe.

directly,

directly, the abſence of a poſitive, relation, namely, a beginning; and, alſo, of ſomething negative, namely, a termination: or, in other words, exiſtence unoriginated and interminable. It cannot be even called continued exiſtence: for continuance implies a beginning, an exiſtence begun, and thenceforward prolonged.

326. The Supreme Being, to whom alone the notion of eternity is applicable, having beſtowed exiſtence on other beings; on comparing the commencement of theſe, with the exiſtence of that Being, from whoſe will and power they originated, the relations of the priority of the latter, and the poſteriority of the former, neceſſarily ariſe. Now, priority and poſteriority conſtitute ſucceſſion: but this ſucceſſion is not that of *time*; for, in this, the prior parts of the ſucceſſion, inſtantaneouſly become *paſt*; whereas, in the former, the prior exiſtence is conſtant and unaltered. The interval betwixt both is unmeaſurable; as we have no ſtandard, nor indeed is any poſſible, which can be applied to it. Thus, we cannot ſay, that the exiſtence of God preceded that of any created being,

being, a million of years, or only a ſingle inſtant; as the quantity of the interval, or diſtance, is neceſſarily unknown.

327. Hence the queſtion, whether God could not have created the univerſe ſooner, implies an abſurdity: for the word *ſooner* expreſſes a compariſon of times; whereas *time* began only on the creation of ſucceſſion.

328. In reply to ſome captious queſtions, it ſhould be obſerved, that, ſince the creation, the duration of God co-exiſts with ſucceſſion. Hence though it cannot be ſaid, that the duration of God has now ſubſiſted longer than it has done, at any other period, ſubſequent to the creation; yet it may be ſaid, that its co-exiſtence, with created beings, is now longer than it was at any period preceding the preſent.

329. The only important point, that now remains to be conſidered, is, whether any created being could have been eternal; as ſome imagine the univerſe, or at leaſt ſome part of it, to have been? To me it appears ſufficiently clear, that creation and eternity, exclude each other. Creation implies, at leaſt, an inſtant, in which the created being did not exiſt: otherwiſe exiſtence could not have been be-

ſtowed upon it; it muſt, therefore, have had a beginning; whereas eternity excludes a beginning.

In anſwer to this, it has been ſaid, that, if the ſun were eternal, its light would alſo be eternal, though produced by it. But it is eaſy to ſee, that, if the ſun were eternal, its light would indeed be eternal;* becauſe the ſun is eſſentially lucid; for without light it would not be a ſun. But it does not follow, that the light was produced by it, but rather that both were co-exiſtent; the one being included in the notion of the other. This cannot be ſaid of the notion of the Supreme Being, and any creature; for he may well be conceived to exiſt, without creating any being whatſoever.

Another much more plauſible objection is made by the ſcholaſtics. The exiſtence of the world, ſay they, is eternally poſſible; and the Divine Omnipotence is alſo eternal: all which is true. But their inference, that the effect, reſulting from an eternally omnipotent cauſe, could alſo be eternal, is inadmiſſible; as cauſation eſſentially requires priority of ex-

* See Clarke's Reply to Waterland, p. 253.

iſtence:

iſtence: without priority it could not be underſtood; it would be perfectly unintelligible. —And the reply they make to this exactly confirms it; for they ſay, that priority of *nature* is ſufficient. Now, what elſe is priority of nature, but that priority, which the nature or notion of cauſation eſſentially implies, namely that of exiſtence? Any other feigned priority is unintelligible. — Their further aſſertion, that, according to this ſtatement, an infinite ſucceſſion of ages muſt have been poſſible, before the creation of any being, is perfectly chimerical: not only becauſe the interval betwixt the creation, and the pre-exiſtence of the Creator, is unknown, as already ſaid; but alſo, becauſe an infinite ſucceſſion is impoſſible, even in the divine ideas; a commencement being eſſential to ſucceſſion, as I ſhall now demonſtrate.

332. Mr. Locke ſays, we derive the idea of eternity from thoſe of ſucceſſion, and duration, by adding the periods of duration as often as we pleaſe; and thus ſuppoſe it a duration, exceeding as many ſuch periods as we can reckon,* without ever coming to an end.

* B. II. c. xiv. ſec. 28, 31, 32. and c. xvi. ſec. 8.

Now, it ſeems to me very clear, that this is rather a fruitleſs attempt to gain an idea, or rather notion of eternity, than an actual acquiſition of that notion: for, after all theſe attempts, we are as far from gaining it as we were at firſt; as he himſelf acknowledges. Hence he thinks, that "if we cannot ſeparate "ſucceſſion from any duration whatſoever, "our idea of eternity can be nothing but that "of infinite ſucceſſion of the moments of du-"ration, wherein any thing does exiſt."*

333. The notion, however, of an actual infinite ſucceſſion of moments implies an evident abſurdity: for ſuch a ſucceſſion ſhould conſiſt of as many years, nay millions and centillions of years, as it ſhould of moments; and thus the whole, and the parts compoſing the whole, would be equal. If we ſuppoſe an infinite number of years, aſſuredly the number of moments, of which thoſe years conſiſt, muſt be ſtill greater, and exceed infinity; which is abſurd. Thus, if an infinite ſucceſſion of moments had paſſed before the creation of the world, muſt it not be in-

* Chap. xvii. ſec. 16.

creaſed

creaſed by the number of them that have elapſed betwixt that time and the preſent.*

334. And, as to the eternity of our world, let it be conſidered, that motion, namely, a ſucceſſive progreſſion round a common centre, is neceſſarily attributable to thoſe planets, which form what we call the world: and that our globe, in particular, includes numberleſs beings that exiſt in endleſs ſucceſſion to each other. Now, an unoriginated, or eternal ſucceſſion, implies an abſurdity, as has been juſt ſhewn; and may be further demonſtrated: thus,

335. From the motion of the earth, for inſtance, round its axis, and round the ſun, the ſucceſſion of days, nights, and years, originates. Now, the days neceſſarily precede the years; therefore, the years muſt have had a beginning, and could not, therefore, have been eternal. In like manner, the days muſt have preceded the nights, or the nights the days: one or other of them muſt, therefore,

* Nothing can be more abſurd than Dr. Clarke's objections to theſe arguments: he regards mathematical lines, points, and ſurfaces, as realities, though they are nothing but mere abſtractions. See *On the Attributes*, p. 10 and 34.

have had a beginning. Moreover, no portion of time can be ſaid to be *paſt*, that was not once *preſent* and antecedently *future*; therefore the whole infinite collection muſt be ſuppoſed to have contained an infinite number of days and years *paſt*, and the ſame infinite number of days and years *future*; which is a contradiction ſo palpable, that Doctor Gregory Sharpe * found no other way of avoiding it, than by aſſerting, that there is, or was, a time, now actually *paſt*, that never was preſent; which is equivalent to ſaying, that a time *has* exiſted, which never *was* in exiſtence.

336. The opinion of ſome ſcholaſtics, that eternity is a *punctum ſtans*, or a permanent moment, being utterly unintelligible, is, I believe, at preſent generally abandoned.

* See his Defence of Dr. Clarke's Diſcourſe on the Attributes, &c. p. 27.

SECT.

SECT. X.

ON HUMAN LIBERTY.

337.—I. *Power* denotes the principle of action. Action denotes the *exerciſe* of power; or, rather, *action* denotes that diſpoſition of a being through whoſe intervention a change happens. The poſſeſſion of that internal diſpoſition is called *power*.

338.—II. *Neceſſity* denotes the conceived *impoſſibility* of the non-exiſtence of any thing.*

339.—III. Hence neceſſity is of three kinds; metaphyſical, phyſical, and moral.

340. An object is ſaid to be *metaphyſically* neceſſary, when its abſence involves a contradiction; and to be *phyſically* neceſſary, when its non-exiſtence contradicts the eſtabliſhed laws of corporeal nature, or when it cannot fail to exiſt, or cannot exiſt otherwiſe than it does without a miracle.

341. Laſtly, that is ſaid to be *morally* neceſſary, whoſe non-exiſtence is contrary to

* Dr. Prieſtley, Vol. VI. p. 172, defines it *the cauſe of conſtancy*, but erroneouſly; the cauſe of conſtancy in moral actions is the ſuperior apparent eligibility of the motives; *neceſſity* is a mere negation, and therefore cannot be a cauſe.

the laws by which moral agents conſtantly and univerſally govern their conduct. On the other hand, we call that future object *certain* which will not fail to come to paſs.

342.—IV. Hence certainty differs from neceſſity in this, that what is neceſſary *cannot*, and what is certain *will not*, fail to happen. What is neceſſary is certain, but not *vice verſa*.

343.—V. A power is ſaid to be *free*, when its exerciſe in every ſenſe is morally poſſible.

344.—VI. *Will, or the power or faculty of willing*, is ſaid to be *free*, when it may act or not act, or *elect*, without the conſtraint of moral neceſſity; for no other can be applied to the will. The application of this definition requires ſome further obſervations.

345.—VII. Firſt, we muſt obſerve, that the will can form no volition, but with a view of obtaining ſome *good*, either real or apparent. For all rational agents *neceſſarily* covet happineſs, and eſteem that to be good which promotes or conſtitutes any degree of happineſs, and conſequently purſue it with an ardour proportioned to the degree it expoſes to their view. A volition, like every action, requires a ſufficient reaſon for its exiſtence; and in this caſe, none can be adduced but the attainment

tainment of ſome degree of happineſs. The good or advantage, thus held forth to the mind, is called the *motive*, or final cauſe of its action. But the efficient cauſe of the volition is the mind itſelf; the term *motive* is in ſome degree improper, as it conveys the idea of activity, whereas it is, in reality, paſſive, being the term towards which the mind moves, or from which it recedes.

346.—VIII. Secondly, as the will can never act without a motive, the *connexion* between a volition and ſome motive is metaphyſically neceſſary, it being grounded on the very nature of the mind, or of an intelligent agent, which cannot act but with a view of obtaining happineſs. But with reſpect to *particular motives*, the following diſtinctions are to be obſerved:

347.—IX. If the good preſented to the mind be apparently *infinite*, its connexion with a correſpondent volition is then morally neceſſary; but if the good preſented be *finite*, the connexion muſt be weaker; but ſtill, as it is no leſs real ſince it exiſts, it is *certain*.

Note.—Certainty is an ambiguous term, as it ſometimes denotes the reality of an object; ſometimes the foundation or cauſe of that reality; and ſometimes the firm perſuaſion of

the mind of the reality of an object: here it is employed in the firſt ſenſe, and ſometimes in the ſecond, but never in the laſt. In the firſt ſenſe it is oppoſed to *unreality*, or *non-exiſtence*; in the third, it is oppoſed to *uncertainty*, or mere probability.

348.—X. Neceſſity and contingency are oppoſed to each other, as contingency denotes the mere poſſible exiſtence or nonexiſtence of an object in any future time; but the oppoſite of certainty is *unreality*.

349.—XI. Hence we may obſerve a gradation in the ſtrength of the tendency of the mind towards the motives that are preſented to it from that which is infinitely ſtrong, and therefore produces a moral *neceſſity* to that which is indefinitely weak, but whoſe connexion with volition is nevertheleſs *certain*. To attribute a purſuit equally ſtrong to motives of apparently unequal appetibility is evidently abſurd; yet this the neceſſitarians are forced to maintain, as neceſſity admits of no degrees. The ſtrength or force of motives, or, more properly ſpeaking, their appetibility, evidently reſults from the degree of *apparent good* which they preſent.*

* Hence alſo the guilt of all crimes is diminiſhed in proportion to the force of the temptation that led to them.

350.

350.—XII. But it may be replied, that neither can reality admit of different degrees, nor, conſequently, can certainty. This is true with reſpect to the firſt ſenſe, but not with reſpect to the ſecond ſenſe of that word; for the foundation ofcertaintyis ſo much the ſtronger as it approaches more to neceſſity.

351.—XIII. If ends or motives, *apparently equally* deſirable, but ſuggeſting different or oppoſite volitions, be preſented to the mind; and if both preſent a greater good than that reſulting from remaining in its actual ſtate by embracing neither; in that caſe, the mind may tend to either, that is, may form a volition to obtain the good preſented by either. For, though there be no *direct* reaſon for preferring either, yet the good preſented by each is a ſufficient, though indirect, reaſon for purſuing that preſented by any of them; and the impoſſibility of purſuing both is a ſufficient reaſon for purſuing one of them.* Yet, probably, ſome *extrinſic* reaſon generally ſuggeſts the choice; ſuch as, that one of them was firſt thought of, or laſt thought of, &c.

352.—XIV. If motives, *apparently unequally*

* This is contradicted, 1 Leib. ccxv.

deſirable,

deſirable, be preſented to the mind, then, if the inequality be *infinite*, the mind will *neceſſarily* purſue the moſt deſirable, for the reaſons already given.

353.—XV. If the inequality be *finite*, it frequently happens that, by conſidering them in different points of view, their appetibility may be inverted, the *moſt* deſirable being in ſome reſpects the *leaſt ſo*, and the leaſt deſirable appearing in ſome lights the *moſt ſo*. Hence the mind is free to purſue either, from the intrinſic good each holds to its view. But if the inequality be finite, and alſo their appetibility, the liberty of choice is proportionably diminiſhed.

354.—XVI. This inverſion becomes ſo much the eaſier as the inequality betwixt the propoſed motives is apparently ſmaller; and ſo much the more difficult, as the apparent inequality is greater. And hence we perceive the benefit of inſtruction, as by its means the *apparent* inequality approaches indefinitely to the *real*.

355.—XVII. Motives are preſented to the mind either by ſenſation, imagination, paſſion, ſenſe of duty, fear of remorſe, or moral inſtincts. In general, thoſe preſented by the three firſt

modes

modes of perception, are moſt purſued, because in receiving them the mind is entirely paſſive, and their rejection is attended with a greater or leſſer degree of pain; whereas the comprehenſion of the latter, in their full ſuaſorial view, requires attention and ſelf-command, which are oppoſed by the natural indolence of the mind, though the importance of the determination to be taken ſtrongly indicate the propriety of applying them, and though the underſtanding pronounce the purſuit of the object they ſuggeſt to be in ſome reſpects the greater good. Hence the ſaying of Medea, *Video meliora*, &c.

356.—XVIII. The difficulties in which this ſubject has hitherto been involved, have ariſen in great meaſure from the improper expreſſions uſed in treating it; moſt of which are, in their literal ſenſe, applicable only to corporeal nature, which is paſſive, and therefore ſuggeſt falſe conceptions when applied to mind, which is eſſentially active. Thus *motives* ſeem to imply ſomething active, whereas they are, in reality, paſſive, being the ends which the mind purſues, or may purſue. They are ſaid to *impel* the mind to action,

which

which again falſely denotes activity, whereas the mind naturally *purſues* them in proportion to the apparent good they preſent. Thus alſo *force* and *ſtrength* are improperly applied to them.

357. I ſhall now proceed to obviate the objections to human liberty, advanced by Dr. Prieſtley, who, of all others, has ſtated them with moſt clearneſs and preciſion, occaſionally noticing any thing further relevant to the ſubject, that has been advanced by other writers.

358. The Doctor (in p. 7 of his Illuſtrations of Philoſophical Neceſſity,) tells us, "that the liberty he denies to man, is that of "doing ſeveral things, when all the previous "circumſtances (including the *ſtate of his* "*mind*, and his *views of things*,) are preciſely "the ſame;" and aſſerts, "that, in the ſame "preciſe ſtate of mind, and with the ſame "views of things, he would *always* volun-"tarily make the ſame choice, and come to "the ſame determination."

359. By views of things, the Doctor evidently means motives, and conſequently, in ſome caſes, namely, thoſe mentioned in IX.

and

and XIV. his aſſertion is perfectly juſt, the motive being there ſuppoſed to be infinitely deſirable. But in moſt caſes, as thoſe mentioned in XIII. and XV. it may be true, and it may alſo be falſe; for as in thoſe caſes the reaſons for oppoſite determinations are apparently equal, the mind may *at one time* form one choice, and at another time another; or it may *always* form the ſame, or each time a *different*.

360. The Doctor alſo ſays, "he allows "to man the liberty of *doing* whatever he "pleaſes;" but the liberty here meant is not the liberty of performing any external action, but the liberty of willing or chuſing.

361. Mr. Locke ſeems to think, that the will cannot properly be ſaid to be free; becauſe "liberty (he ſays) is but a power belong-"ing to agents, and cannot be an attribute "or modification of will, which is alſo a "power." But liberty is not merely a power, but a ſpecies of power, as power may be exerted either neceſſarily or freely.

362. To eſtabliſh his concluſion, Dr. Prieſtley lays down ſome obſervations relative to cauſe and effect, which, being ſolely applicable

to corporeal nature, I omit. He then tells us, (p. 13,) "that a particular determination of "the mind could not be otherwiſe than it "was, if the laws of nature be ſuch, as that "the ſame determination ſhall conſtantly "follow the ſame ſtate of mind, and the "ſame view of things; and it could not be "poſſible for the ſame determination to have "been otherwiſe than it *has been, is,* or *is to* "*be,* unleſs the laws of nature had been ſuch, "as that, though both the ſtate of the mind "and the views of things were the ſame, the "determination might, or might not, have "taken place. But in this caſe the determi-"nation muſt have been an effect without a "cauſe; becauſe in this caſe, as in that of a "balance, there would have been a change "of ſituation without any previous change of "circumſtances; and there cannot be any "other definition of an effect without a "cauſe."

363. To this reaſoning I reply,—that the laws of nature, with reſpect to intellectual agents, are ſuch, that, though the ſtate of mind and the views of things be exactly the ſame, one and the ſame determination might

not

not have taken place in the caſes mentioned in XIII. and XV.: and yet, whether the ſame or a different determination take place, it will not be an effect without a cauſe; for as in thoſe caſes different motives or final cauſes, equally attractive, are ſuppoſed to occur—whichever of them the mind purſues, its determination will not want a final cauſe. The compariſon of a balance, which will remain in æquilibrio when the ſcales are loaded with equal weights, is inapplicable, as the balance does not act, but is acted upon; whereas the mind is evidently poſſeſſed of an active power of purſuing a propoſed end.

364. The Doctor further adds, (in his reply to Mr. Palmer, p. 7,) "that certainty, or "univerſality, is the only poſſible ground of "concluding, that there is a neceſſity in any "caſe whatever;" which is true, as far as reſpects corporeal nature. But, with reſpect to intelligent beings, the perceived connexion betwixt their actions, and a ſuperior *degree* of apprehended happineſs, is the true ground of the neceſſity of their volitions when they are neceſſary, as ſhewn, IX. and XIV.; which, indeed, may be indicated by conſtancy and univerſality;

univerſality; and where this ground does not exiſt, certainty (with reſpect to our knowledge) cannot be obtained.

365. The next argument, in proof of the neceſſity of human actions, is derived from divine preſcience. Dr. Prieſtley ſtates it thus: "As it is not in the compaſs of power "in the author of any ſyſtem, that an event "ſhould take place without a cauſe, or that "it ſhould be equally poſſible for two events "to follow in the ſame circumſtances, ſo nei-"ther, ſuppoſing this to be poſſible, would it "be within the compaſs of knowledge to "foreſee ſuch a contingent event; for as no-"thing can be known to *exiſt* but what does "exiſt, ſo, certainly, nothing can be known "to *ariſe from what does exiſt* but what does "ariſe from it, or depend upon it. But, ac-"cording to the definition of the terms, a "contingent event does not depend upon any "previous known circumſtances, ſince ſome "other event might have ariſen in the ſame "circumſtances. All that is in the compaſs "of knowledge in this caſe is, to foreſee all "the different events that might take place "in the ſame circumſtances; but which of

"them

" them will actually take place cannot poſ-
" ſibly be known."—P. 19.

366. In anſwer to this argument, we muſt obſerve, that not only the immenſely complicated ſeries and concatenation of events, which we denominate the *actual ſyſtem of the world*, was originally *barely poſſible*, but alſo an infinite number of other ſyſtems, differently arranged and equally complicated. In ſome of theſe the contingent act appeared linked with one of the motives with which, in the ſame circumſtances, it might poſſibly be connected; and, in another ſyſtem, a very different event might ariſe from the equally poſſible connexion with the oppoſite motive, as in the caſes N° 13, and 15. Each of theſe events would give room to a totally different ſeries of ſubſequent events; for the greateſt and moſt important ariſe from others ſeemingly the leaſt important. Among theſe different ſyſtems God has choſen the *beſt*, or, at leaſt, *one of the beſt*; and upon this choice his foreknowledge of that determinate contingent object, which is to happen, to which the Doctor alludes, and where apparently unequal motives do not determine it, is grounded.

367. To this argument Mr. Crombie (in his Treatiſe on Philoſophic Neceſſity, p. 73,) further adds, that ſince the Deity foreſees future events, they muſt neceſſarily take place. But as knowledge of any kind is perfectly extrinſic to the events known, and exerts no ſort of influence over them, all that can juſtly be inferred from the infallibility of divine præſcience is, that the event foreſeen will *certainly* and infallibly, but not neceſſarily, happen; for to ſecure the infallibility of divine foreknowledge, the future exiſtence of the event foreſeen, and not the impoſſibility, whether phyſical or moral, of its nonexiſtence, or, in other words, its certainty, but not its impoſſibility, muſt be ſuppoſed.

368. All the objections, hitherto made to human liberty, ſeem to me reducible to thoſe I have here noticed. It is needleſs to adduce any argument in proof of it, as the conſciouſneſs of our being ourſelves the active principle, from which our determinations originate, and the remorſe incident to the abuſe of this ſelf-determining power, impreſs the fulleſt conviction of this important truth.

ESSAY II.

CHAP. I.

OF THE HUMAN MIND AND ITS MODIFICATIONS.

369. By the human *mind*, we denote the principle or ſubject of our perceptions, whether ſenſations, ideas, notions, thoughts, judgments, volitions, deſires, averſions, &c. which we call our *ſelf*, of which we are conſcious; we can even infer by reaſoning, from the impoſſibility of the exiſtence of modes without a common ſubject, that ſuch a ſubject really exiſts: by a ſpirit I underſtand that indiviſible unextended thing which thinks, acts, and perceives. See Berkeley's Third Dialogue, p. 293.

370. Yet Mr. Hume aſſerts,* "that mankind are nothing but a bundle of perceptions, which ſucceed each other with an inconceiveable rapidity, and are in a perpetual flux and movement." And again, "we may obſerve, that the true idea of the mind, is to conſider it as a ſyſtem of dif-

* Treatiſe on Human Nature, p. 361. 437. 439. 453.

" ferent perceptions or different exiſtences
" which are linked together, by the relation
" of cauſe and effect, and mutually produce.
" deſtroy, influence, and modify, each other."
Theſe ſtrange aſſertions are entirely grounded on this, that we have no idea of *ſelf*, as if we did not know many things of which we have no idea in the ſtrict ſenſe of that word; thus we have no idea of *joy* or *grief*, *judgment* or *volition*, though we well know what thoſe words indicate.

371. In the deluſive plauſibility of ſuch reaſoning, the hyloiſts,* or ſupporters of the exiſtence of what they call *material ſubſtance*, loudly triumph, as they think the reaſoning of Berkeley againſt the exiſtence of matter, grounded on ſimilar principles, and therefore equally viſionary and abſurd: but they are much miſtaken; the falſehood of Hume's reaſoning, if it can be ſo called, is demonſtrable; whereas it is generally allowed that Berkeley's arguments, though (in ſome minds) they produce no conviction, yet ad-

* Such philoſophers as admit no other ſubſtance but matter I call *materialiſts*, ſuch as admit both matter and mind I call *hyloiſts*.

mit

mit of no anſwer;* the weakneſs of the few that were attempted I ſhall ſoon ſhew.

372. But to return to Mr. Hume: Mr. Merian, one of the ableſt metaphyſicians of the age, has ſhewn more at large the abſurdity of Hume's ſyſtem, in the Memoirs of Berlin for 1793, nearly as follows.†

According to Mr. Hume, we are nothing but an aggregate of phænomena. Now I aſk, whether a phænomenon can exiſt without being perceived? If not, I aſk who perceives it? To this queſtion there are but three poſſible anſwers; either it is perceived by itſelf, or by ſome other phænomenon, or by ſomething that is not a phænomenon. Now a phænomenon perceiving itſelf, would be ſtrange indeed; ſounds hearing themſelves. ſmells ſmelling themſelves, &c.: beſides, in this caſe, there could be no compariſon of phænomena, nor conſequently any judgment founded on ſuch compariſon. Secondly, to ſay that phænomena can perceive other phœnomena, is ſtill, if poſſible, more abſurd;

for inſtance, ſmells hearing ſounds, ſounds ſeeing colours, &c.; therefore Thirdly, there muſt be a ſubject or *ſubſtratum* of theſe perceptions, of which they are modifications. Moreover, ſenſations of one ſort, are often compared with ſenſations of another ſort, as thoſe of ſight with thoſe of hearing: now, can viſion judge of hearing? or colours judge of ſounds? &c. May we not have two ſimultaneous ſenſations contrary to each other? May we not feel extreme heat in one hand and extreme cold in the other? Can then two contrary ſenſations co-exiſt without any ſubject? But it were idle to purſue this ſubject further. Very different, indeed, are the arguments of Berkeley againſt that fictitious *ſubſtratum* called *matter:* how then could Doctor Reid ſay, that Hume proceeds on the *ſame principles* as Berkley, but carries them to their full length? And as the biſhop undid the whole material world, this author, on the *ſame grounds*, undoes the world of ſpirits, and leaves nothing in nature but ideas and impreſſions, without any ſubject on which they may be impreſſed. That Hume's theory has been

very

very unfairly deduced from Berkeley's tenets, is acknowledged by the candid and judicious author of the Encyclopædia Britannica, p. 544.*

* Berkeley himſelf has long ago anticipated and obviated this objection, in his third Dialogue; thus, "I "know, or am conſcious, of my own being; and that I "myſelf am not my ideas, but ſomewhat elſe; a thinking, "active principle, that perceives, knows, wills, and ope-"rates about ideas. I know that I, one and the ſame ſelf, "perceive both colours and ſounds: that a colour cannot "perceive a ſound, nor a ſound a colour: that I am "therefore one individual principle, diſtinct from colour "and ſound; and, for the ſame reaſon, from all other ſen-"ſible things and inert ideas: but I am not in like man-"ner conſcious either of the exiſtence or eſſence of matter; "on the contrary, I know that nothing inconſiſtent can "exiſt, and that the exiſtence of matter, implies an incon-"ſiſtency. Further, I know what I mean, when I affirm, "that there is a ſpiritual ſubſtance or ſupport of ideas; that "is, that a ſpirit knows and perceives ideas. But I do not "know what is meant, when it is ſaid, that an unperceiving "ſubſtance hath inherent in it, and ſupports, either ideas or "the archetypes of ideas. There is therefore, upon the "whole, no parity of caſe between ſpirit and matter." P. 297 and 298.

SECT.

SECT. I.

OF THE MODIFICATIONS OF THE HUMAN MIND.

373. The modifications of the mind, or the various ſtates in which it may exiſt, have been already enumerated, N° 369. Our next endeavour ſhould be to claſſify them, in order to obſerve in what reſpect they agree or are diſtinguiſhed from each other.

374. The firſt and moſt general diſtinction of theſe modifications, is that of *paſſive* and *active*.

375. The paſſive, are thoſe of which the mind itſelf is not the direct and immediate cauſe, but which are impreſſed upon it by an extrinſic cauſe, which can be no other but the *Supreme Being*; though in many inſtances the mind, conformably to certain ſtated laws, may alter, exchange, or extinguiſh, many of them. Thus while my eyes are open, I cannot avoid ſeeing one or more of the objects that are before me; but I may, if I pleaſe, ſhut my eyes, and thus extinguiſh all viſual ſenſations; and by opening my eyes I may renew them again: in this manner the Will

may

may often be the occaſional cauſe of the exiſtence or extinction of ſenſations, and other paſſive modifications.

376. Hence paſſive Modifications may be called *impreſſions:* by impreſſion I underſtand any ſenſible change produced in a paſſive ſubject, by the operation of an external cauſe.

377. Impreſſions are either *ſenſual*, or *ſenſible*, or merely *ſpiritual*.

378. *Senſual* impreſſions are thoſe that are made upon us through the intervening organs of the external ſenſes: they are called *ſenſations*. Such are thoſe of viſion, hearing, ſmells, taſtes, and tact.

379. *Senſible* impreſſions are thoſe made upon us through the internal organs of feeling; ſuch as thoſe of hunger, thirſt, ſaturation, and other ſenſations, whether painful or agreeable, and may be called internal ſenſations.

380. *Spiritual impreſſions* are thoſe which are connected indeed with corporeal impreſſions, but in an inviſible and unknown manner. Such are ideas, diſcernment of relations, emotions and paſſions.

381. All the paſſive modifications are comprehended

prehended under the general appellation of *perceptions*.

382. The *active* modifications of the mind are only two; the act of *judging*, and that of *willing or rejecting*; which laſt, when exerciſed on the propoſal of two or more meaſures, is called *election*, or *preference*.

383. All the above-mentioned modifications have been referred to different capacities or powers; namely, the *underſtanding*, *memory*, and *will*.

384. Under the head of *underſtanding*, are placed, ſenſations, ideas, notions, diſcernment of relations, and judgment.

SECT II.

OF SENSATIONS IN GENERAL.

385. Senſations are the impreſſions which we receive from the Supreme Being, through the intervention of the organs of ſenſe; they are alſo the ſtrongeſt and moſt forcible, as they more ſtrongly excite our notice than other perceptions commonly do. On theſe we may remark,

386.

386. Firſt, that in the perception of ſenſations, the mind is perfectly paſſive; for they cannot be excited by a mere act of the will, as already ſaid: in vain would I ſeek to obtain the ſenſation of *redneſs*, or of any ſound, &c. or of hunger, merely by wiſhing to do ſo; but by exerciſe I may excite, and thus be the occaſional cauſe of the ſenſation of hunger, and by taking proper means I may obtain other ſenſations.

387. Secondly, ſenſations have no object diſtinct from themſelves; that is to ſay, they are not repreſentations of any thing; they can only be ſaid to be perfectly ſimilar to other ſenſations of the ſame kind and degree in other minds.* But they are frequently ſigns of other ſenſations which may be expected; thus the ſmell of a roſe ſuggeſts the preſence of a roſe; the ſmell of putrid meat announces alſo its taſte, and even occaſions a nauſea, which is an internal ſenſation.

388. Thirdly, ſenſations are alſo capable of various degrees of intenſity, from the faintеſt, which are capable of being miſtaken for de-

* In this I am happy to agree with Dr. Reid. 1 Reid, 276; and on the Mind, 146.

luſions,

luſions, to the ſtrongeſt. This often happens when we contemplate very diſtant objects, or view them through a miſt, or in a weak light; as we approach, or the medium becomes more tranſparent, or the light more copious, the object is more clearly diſcerned. So warmth may be gradually increaſed, until from being agreeable it becomes painful. So the feeling of a ſmooth body may be ſo increaſed, as from being gentle and agreeable, to become a painful preſſure. So meat may be ſo far ſalted or ſpiced, as from being pleaſing to become painful; the ſame may be ſaid of perfumes, ſounds, &c. Hence Dr. Crichton juſtly obſerves, that pleaſure differs from pain only in degree:* but ſuch degrees may exiſt independently of each other.

389. Fourthly, the mind may experience different ſenſations at the ſame time: thus I may ſee the moon, ſmell a roſe, taſte honey, and hear ſounds at one and the ſame time: nay, I may feel oppoſite ſenſations at the ſame time: thus, if I warm one of my hands and cool the other in ſnow, and then dip both in

* 1 Crichton on Mental Derangement, p. 127.

lukewarm

lukewarm water, the warm hand will feel it cold, and the cold hand warm.

390. Fifthly, a group of ſenſations received through different ſenſes, but connected with, dependant on, and referred to each other, receive the ſame name: thus, the aſſemblage of a certain colour, of a certain peculiar ſmell, a certain ſhape and figure, and a certain flexibility, ſmoothneſs, &c. is called a *roſe:* its properties, when chymically treated, are more numerous, but they are all connected with and referred to thoſe firſt mentioned; inſomuch, that if the ſmell was taken away, or different, the other ſenſations remaining unaltered, the group would no longer bear the ſame name, or it would have ſome addition tacked to it, as a *muſk roſe*, &c.; ſo alſo if the number of its petals, or *ſtamina*, were altered.

391. So alſo water, whether hot or cold, retaining the ſame external appearance, is ſtill called water; but if converted by heat into *ſteam*, or by cold into *ice*, it no longer bears its original name, though again reducible to its priſtine ſtate; its conſtitution therefore remains unaltered in theſe different ſtates, which are then merely contingent; but its conſtituent

conſtituent ingredients are deemed its eſſence.

392. In the ſame manner an aggregate of appearances perceived by the ſenſes of ſeeing and touch, as a peculiar colour, luſtre, malleability, extenſibility, and comparative weight, together with the exhibition of various other properties, when chymically treated, is known by the name of gold, or ſilver, &c. as the caſe may be; and it retains the ſame appellation, whether cold and ſolid, or liquified by heat.

393. The ſame remark extends to all other mineral, vegetable, or animal bodies; the aggregate properties perceived by the ſenſes, in the ſame circumſtances, are the only which form the complex object to which a name is given; nothing elſe is found, or can be found, through the medium of the ſenſes; ſo that if we had ten more ſenſes they could convey to us nothing more than new ſenſations; but could not inform us of their cauſe, which muſt be inferred by reaſon, and can be no other than the Supreme Being, or other beings conforming to the laws he has preſcribed.

394. Each of theſe ſenſations, conſidered

ſingly,

ſingly, are called the qualities of that to which they are referred.

395. Sixthly, as all ſenſations are impreſſed on our minds by the Supreme Being, they muſt be known to him, not by organs of ſenſe, of which he has none, but in a manner to us inconceivable: the ſame changes therefore which, conformably to his laws, take place in our minds, are perceived by him, whether perceived by us or not. That his mode of knowledge is to us inconceivable, is, beſides other reaſons, evident from this, that he knows *pain*, even the moſt extreme, without feeling it; whereas, if we had never felt it, we ſhould never know it. The modifications of our minds ſhould, in caſe they exiſted in them, undergo various changes, by reaſon of the progreſs, interference, or oppoſition, of the laws by which they are governed, or to which they are expoſed: in the Divine intellect correſponding variations take place; nor do ſuch variations derogate from his eſſential perfections, as they neither add to nor detract from any of them. That ſuch variations are not incompatible with his immutability, is evident, ſince he poſſeſſes now, as he

he did from all eternity, the moſt perfect freedom; which eſſentially requires a power of changing his determinations at preſent, equally as at any antecedent imaginable period of his exiſtence.*

SECT. III.

OF ODOURS, SOUNDS, AND TASTES.

396. The ſenſations of ſmells and ſounds may exiſt in the mind without any reference to a particular object: thus I may perceive a ſmell, without knowing with what tangible ſenſation it is connected: thus the ſavage boy of Aveyron did not turn his head on hearing a piſtol fired juſt behind him; but by experience a connexion, more or leſs perfect, is acquired.

397. That both theſe ſenſations can exiſt only in the mind that perceives them, is now univerſally allowed; that they are not images or repreſentations of any external object, is alſo acknowledged; yet they are ſo connected

* This is owned by many of the ſcholaſtics. See Segui, Metaph. vol. ii. p. 97.

with

with tangible ſenſations, either perceived or ſuggeſted, that their intenſity increaſes in proportion as their diſtance from the tangible ſenſations decreaſes: and hence they are ſuppoſed by many to iſſue from them. But this is impoſſible; for one ſenſation cannot iſſue from another, from which it is ſpecifically different; as well might taſtes proceed from light: they relate to organs totally different. Nor can they be ſaid to be cauſed by any tangible objects, as Dr. Reid, the ableſt defender of hyloiſm, candidly avows. * What we call natural *cauſes*, may with more propriety, the Doctor ſays, be called natural *ſigns*; and what we call *effects*, are the things *ſignified*. What we call cauſes, he adds, have no natural efficacy or cauſality, as far as we know: all we can certainly affirm is, that nature (God) hath eſtabliſhed a conſtant conjunction between them and the things called their *effects*.

398. In the caſe before us, the connexion betwixt odours or ſounds with tangible ob-

* Inquiry into the Human Mind, Chap. v. ſec. 3. p. 112.

jects is ſuch, that variations in the ſtate or ſpecies of the former are conſequent on, and correſpond with, the variations in the ſtate of the latter: thus the ſmell of a roſe ſuffers ſome alteration when the roſe is dry, or heated to a certain degree, and is deſtroyed when the heat is further increaſed: thus the ſmell of wine is changed when it becomes vinegar; as is that of meat as it enters and proceeds in the putrefactive proceſs; ſo the ſound of a chord alters with its extent and tenſion, &c. And not only tangible, ſolid, ſonorific objects, are thrown into a vibratory motion, but oſcillations, or undulations, are produced in the air that communicates with them which reach the ear, after which the ſenſation of ſound ariſes, which has no reſemblance whatſoever with theſe motions.

399. So the vapour of eſſential oils ſtrikes the glands of the noſtrils before any ſmell is perceived, though this vapour is imperceptible by the ſight or the hand; yet it is perceived by the noſe and fauces, as diſtinct from the ſmell.

400. *Taſtes* to be perceived require contact with the tongue or palate, or ſtomach of objects,

objects; that is, ſenſations, ſtill more perfectly tangible, whether ſolid or liquid.

401. To inveſtigate more minutely the proceſſes that precede the ſenſation peculiar to each of the ſenſes, is needleſs in a metaphyſical treatiſe. Whoever wiſhes an exact detail will find it in Doctor Crichton's truly philoſophical Eſſay on Mental Derangement.

402. Hence we ſee, that a tactile ſenſation, that is, a ſenſation perceived by the tact of the organs, or any of the ſenſes, muſt in all caſes precede the ſenſations peculiar to that ſenſe: and hence, though it cannot be called the *efficient* cauſe, yet it may be the *occaſional*, or *conditional*, cauſe of that ſenſation.

SECT. IV.

OF VISUAL SENSATIONS.

403. It is quite unneceſſary to give here any detailed account of the ſtructure and admirable mechaniſm of the organs of ſight, as it is now univerſally acknowledged, that their ſtructure cannot explain how viſual ſenſations are obtained.* Yet theſe organs, and the in-

* Porterfield, Stewart, Crichton, Condillac, &c.

tegrity of their ſtructure, are conditions neceſſary to the attainment of thoſe ſenſations, as is evident by the ceſſation of theſe, when thoſe are diſturbed or injured. The ſame may be ſaid of the organs of all the other ſenſes.

404. The ſenſations of *light* and *colours*, with their intermediate ſhades and degrees, are alone immediately perceived by the mediation of the organs of ſight; and hence called its proper *object*: juſt as *ſounds* are the proper object of *hearing*; and as *extenſion*, *motion*, *heat* and *cold*, &c. are the proper objects of the *touch*, or ſenſe of *feeling*; becauſe immediately perceived by the mediation of the organs of that ſenſe. Yet, plain and evident as this is, moſt philoſophers have, in ſome caſes, greatly miſapplied this term; for they have conſidered the objects of a ſenſe as ſomething diſtinct from the ſenſation obtained through that ſenſe, though, in other caſes, they allow the object cannot be diſtinguiſhed from the ſenſation. Thus moſt philoſophers, ſince the time of Deſcartes, and Mr. Locke in particular, allow that colours, ſmells, and ſounds, are nothing in their *objects* themſelves,

ſelves, but only *powers* to produce thoſe ſenſations in us.* Yet theſe powers, not being immediately perceived, but only inferred, (no matter, at preſent, whether properly or improperly,) cannot be called the object of any ſenſe—no more than a ſword can be ſaid to be the object of the painful ſenſation a wound from it inflicts. Yet Dr. Reid thinks he perceives matter *objectively*.—1 Reid, 265. But what he calls *perception*, turns out, when examined, to be an act of judgment at moſt, and hardly even that; and what he calls its *object*, a mere inconſiſtent notion, for which he can find no other name than *a ſomething*, as will be ſhewn in the appendix to this eſſay. He allows that *ſenſations*, which he in vain endeavours to diſtinguiſh from perceptions by ſenſe, have no object diſtinct from themſelves.—1 Reid, 53, and 55.

405. Though *light* and *colours* alone are the immediate objects of ſight, yet, by long and deep-rooted aſſociations with the objects of touch, and certain ſenſations of the tactile kind in the eye itſelf, many other objects, which properly belong to the touch, are in-

* Locke, B. ii. Chap. viii. ſec. 14.

ſtantaneouſly ſuggeſted to the mind, and their exiſtence, either actual or future, inferred. Theſe objects are *diſtance*, tangible *extenſion*, *magnitude*, *ſituation*, *motion*, *figure*, and frequently *weight*: what ſpecies of perception is thus ſuggeſted, ſeems to me well explained by Profeſſor Stewart.* He tells us, that the qualities, which are the proper and original objects of ſight, are firſt perceived; and, ſecondly, a conception is had (that is, an idea,†) of thoſe tangible qualities, of which the original perceptions of ſight are found from experience to be the ſigns. The perceptions, therefore, we have, by means of the eye, of the tangible qualities of bodies, and of the diſtances of theſe bodies from the organ, are mere *ideas*, ſtrongly, and indeed indiſſolubly, aſſociated, by early and conſtant habit, with the original perceptions of ſight.

* Philoſophy of the Mind, 148, &c.

† By conception, he means that power of the mind which enables it to form a notion of an abſent object of perception, or of a ſenſation which it has formerly felt, p. 133: this is more commonly called an *idea*. I have alſo ſubſtituted perception for *notion*, as more agreeable to my definitions; and the ſenſe not altered.

406. When we open our eyes on a magnificent proſpect, the various diſtances at which its different parts are placed from the eye, and the immenſe extent of the whole ſcene before us, ſeem to be perceived as immediately and as inſtantaneouſly by the mind, as the coloured ſurface; the truth however unqueſtionably is, that this variety of diſtance, and this immenſity of extent, are not *objects of ſenſe*, but of *idea*; and the perceptions we have of them when our eyes are open, differ from thoſe we ſhould have of them with our eyes ſhut, only in this, that they are kept ſteadily in the view of the mind, by being ſtrongly aſſociated with the *ſenſations* of colour, and with the original perceptions of ſight; this obſervation will be more readily admitted, if it be conſidered, that by a ſkilful imitation of a natural landſcape, in a common ſhew-box, the mind may be led to perceive the ſame variety of diſtance, and even of immenſe extent, as if the original ſcene were preſented to our ſenſes: and that, although, in this caſe, we have a *ſpeculative* conviction that the ſphere of our viſion only extends to a few inches, yet ſo ſtrong is the aſſociation

between the original perceptions of ſight, and the ideas which they habitually ſuggeſt, that it is not poſſible for us, by any effort of our will, to prevent theſe ideas from taking place.

407. Beſides the viſual ſenſation called *light*, there are tactile ſenſations, alſo, called light, or rays of light, perceptible by contact with the organ of ſight, which are diſtinct from, and precede as uſual, the viſual ſenſation: this is evident from the injury which the organ ſuffers by expoſure to a ſuperabundance of thoſe rays. Some of them always remain in the organ. When theſe ſenſations are combined, they precede the mere ſenſation of light; but when ſeparate, they precede the ſenſation of various colours; and hence they are called *colorific rays*, or *priſmatic colours*, as their ſeparation is more diſtinctly effected by a priſm; though, in fact, only the tangible ſenſations are thus ſeparated: but they are followed by the viſual.

408. Though *colours* form the proper object of ſight, yet, by their early and conſtant aſſociation with certain tangible objects, of which they are only the ſigns, they are, in appearance,

appearance; ſpread over them, and ſeem to inhere in them; but this miſtake has long ſince been detected by Deſcartes, Malbranche, and Locke. In effect, colours vary with the diſtance of the tangible object, with a depravation of the humours of the eye, by the light of the moon, or of candles, or various artificial means: thus mountains, though green when near, appear blue at a diſtance; a cloud, though red at a diſtance, appears but a dark fog when near: all objects ſeem yellow to a jaundiced eye, or ſeen through a yellow glaſs; or red, when ſeen through a red glaſs; and light blues appear green by moon or candle light: and let it not be ſaid, that theſe colours are not real, but merely artificial; for, as Berkeley juſtly remarks, muſt not thoſe colours be deemed the moſt true and real, that are diſcerned by the ſharpeſt ſight? Now, it is certain from dioptrics, that microſcopes make the ſight more penetrating, and repreſent objects as they would appear to the eye, in caſe it were endowed with the moſt exquiſite ſharpneſs; yet they often diſcover colours in an object different from thoſe perceived by the unaſſiſted ſight; and in caſe we had microſcopes,

ſcopes, magnifying toany aſſigned degree, it is certain that no object whatſoever, ſeen through them, would appear in the ſame colour which it exhibits to the naked eye; hence we may conclude, that colours are not really inherent in tangible objects, but perfectly dependant on circumſtances; and, to ſay nothing of our dreams, the colours ſeen in a common mirror are ſufficient to perſuade us, that they have no neceſſary connexion with the tangible objects they apparently inveſt.

409. I now proceed to the ſecondary objects of ſight, *diſtance*, viſible *magnitude*, *figure*, *ſituation*, and *motion*, of which I ſhall give a ſummary account; firſt from the fourth dialogue of Berkeley's Minute Philoſopher, and ſubjoin thereto a fuller, from his Eſſay on Viſion. There will be ſome repetitions, but in treating a matter ſo abſtruſe, they will not be found uſeleſs.

410. *Diſtance* is a line projected endwiſe to the eye. Now a line in that ſituation can project no more than one ſingle point on the bottom of the eye; the appearance therefore of a long or ſhort diſtance is of the ſame magnitude, or rather of no magnitude at all, being

ing in all caſes a ſingle point: hence diſtance is not *immediately* perceived by the eye, therefore it is by the mediation of ſomething elſe. To diſcover what this is, let us examine what alteration there may be in the appearance of the ſame object placed at different diſtances from the eye. Now I find by experience, that when an object is removed further and further in a direct line from the eye, its viſible appearance grows leſſer and fainter; and this change of appearance being proportional and univerſal, ſeems to be that by which we apprehend the various degrees of diſtance; yet littleneſs or faintneſs, in their own nature, have no neceſſary connexion with greater length or diſtance; they could not therefore ſuggeſt it but from experience; conſequently we perceive diſtance by a ſign which has no likeneſs to it, nor neceſſary connexion with it, but which ſuggeſts it from repeated experience, as words do things.

411. Diſtance is not eſtimated by the obtuſeneſs or acuteneſs of angles, for the angles themſelves are not perceived, and therefore nothing can be inferred from them: from all which it follows, that a man born blind, and afterwards made to ſee, would, upon firſt receiving

receiving his ſight, take the things he ſaw not to be at any diſtance, but in his eye, or rather in his mind.

412. Strictly ſpeaking, the tower or object I ſee at a great diſtance, is not the ſame as that which is ſeen when near; the former is a little round thing, the latter a great ſquare building; and ſurely a round thing cannot be exactly the ſame as a ſquare thing.

413. Hence the variations of viſible objects form a language adapted to ſuggeſt the diſtance, figure, ſituation, and dimenſions of tactile objects; not by ſimilitude, nor by the arbitrary interpoſition of providence; but juſt as words ſuggeſt things ſignified through the ear, by experience and habit.

414. Hence a perſon newly made to ſee, would never think of men or trees, or other objects, which he had been accuſtomed to know by touch, upon having his mind filled with the new ſenſations of light and colours, whoſe various combinations he doth not as yet underſtand, no more than a Chineſe upon firſt hearing the words

words *man* and *tree*, would think of the things ſignified by them.*

415. The tactile objects thus ſuggeſted are ſaid to be *ſeen*, becauſe their viſible ſigns being little attended to in themſelves, or for their own ſake, but conſidered chiefly in their relative capacity, it comes to paſs, that the mind often overlooks them, and carries its attention immediately to the object ſignified: thus, in reading, we run over the characters with the ſlighteſt regard, and paſs on to the meaning: hence we often ſay, we ſee *words* or even *things* in reading, whereas, in ſtrictneſs, we ſee only the written characters which ſuggeſt thoſe words: ſo men overlooking the immediate and proper objects of ſight, carry their attention onward, to the tangible objects which are the things ſignified, and talk as if they ſaw them, whereas in truth they are only ſuggeſted or apprehended, by the proper objects of ſight, which alone are ſeen; this connexion we learn of ourſelves, and from our earlieſt infancy.

* Theſe predictions were verified by Cheſelden's experiment, nineteen years after this was written by Berkeley; and lately by Dr. Home, Phil. Tranſ. 1807, p. 83.

*From Berkeley on Viſion.**

§ 3.

416. It is acknowledged, that the eſtimate we make of the diſtance of objects conſiderably remote, is rather an act of judgment, founded on experience, than of ſenſe. For example, when I perceive a great number of intermediate objects, ſuch as houſes, fields, rivers, and the like, which I have experienced to take up a conſiderable ſpace, I thence conclude, that the object I ſee beyond them, is at a great diſtance. Again, when an object appears faint and ſmall, which at a near diſtance I have experienced to make a vigorous and large appearance, I inſtantly conclude it to be far off; and this, it is evident, is the reſult of experience; without which, from the faintneſs and littleneſs, I ſhould not have inferred any thing concerning the diſtance of objects.

* I have taken the liberty to alter ſome expreſſions, by reaſon of the permiſſion he gave, ſec. 120, but in entire conformity with his ſentiments.

§ 4.

417. But, when an object is placed at ſo near a diſtance, as that the interval between the eyes bears any ſenſible proportion to it, the opinion of ſpeculative men is, that the two optic axes, concurring at the object, do there make an angle, by means of which, according as it is greater or leſſer, the object is perceived to be nearer or further off.

§ 5.

418. Betwixt which, and the foregoing method of eſtimating diſtance, there is this remarkable difference, that whereas there was no apparent neceſſary connexion between ſmall diſtance and a large and ſtrong appearance, or between great diſtance and a little and faint appearance, there appears a very neceſſary connexion between an obtuſe angle and near diſtance, and an acute angle and further diſtance; it does not in the leaſt depend on experience, but may be evidently known by any one before he had experienced it, that the nearer the concurrence of the optic axes, the greater the angle,

angle, and the remoter their concurrence is, the leſſer will be the angle comprehended between them.

§ 6.

419. There is another way mentioned by optic writers, whereby they will have us judge of thoſe diſtances in reſpect to which the breadth of the pupil hath any ſenſible bigneſs, and that is the greater or leſſer divergency of the rays, which iſſuing from the viſible point do fall on the pupil; that point being judged neareſt, which is ſeen by moſt diverging rays, and that remoter which is ſeen by leſs diverging rays; and ſo on, the apparent diſtance ſtill increaſing as the divergency decreaſes, till at length it becomes infinite, when the rays that fall on the pupil are to ſenſe parallel. And in this manner it is ſaid we perceive diſtance when we look only with one eye.

§ 7.

420. In this caſe alſo, it is plain we are not beholden to experience, it being a certain neceſſary

neceſſary truth, the nearer the direct rays falling on the eye approach to a parallelism, the further off is the point of interſection, or viſible point from which they flow.

§ 8 and 9.

421. Now, though the accounts, here given, are received for true, yet they ſeem unſatisfactory: it is evident that when the mind perceives any thing, not immediately, and of itſelf, it muſt be by the means of ſome other perception: thus, for inſtance, the paſſions which are in the mind of another, are of themſelves to me invincible; I may nevertheleſs perceive them by ſight, though not immediately, yet by means of the colours they produce in the countenance. We often ſee ſhame or fear in the looks of a man, by perceiving the changes in his countenance to red or pale.

§ 10.

422. Moreover it is evident, that nothing which is not itſelf perceived can be the means

of perceiving any other thing: if I do not perceive the redneſs or paleneſs of a man's face, it is impoſſible I ſhould perceive, by them, the paſſions which are in his mind.

§ 11.

423. Now it is plain that diſtance, being in its own nature imperceptible, and yet it is perceived by ſight; it remains, therefore, that it be brought into view by ſome other perception, that is itſelf immediately perceived in act of viſion.

§ 12.

424. But thoſe lines and angles, by means whereof ſome men pretend to explain the perception of diſtance, are themſelves not at all perceived; nor are they, in truth, ever thought of by thoſe unſkilled in optics. I appeal to any one's experience, whether, upon ſight of an object, he computes its diſtance, by the bigneſs of the angle made by the meeting of the two optic axes? or whether he ever thinks of the greater or leſſer divergency

of

of the rays which arrive from any point to his pupil? In vain ſhall any man tell me, that I perceive certain lines and angles which introduce into my mind the various judgments of diſtance, ſo long as I myſelf am conſcious of no ſuch thing.

§ 16.

425. Now it being already ſhewn, that diſtance is ſuggeſted to the mind by the mediation of ſomething elſe, which is itſelf perceived in the act of viſion, it remains that we inquire what ſenſations there be that attend viſion, unto which we may ſuppoſe the judgments of diſtance are annexed, and by which they are introduced into the mind. And, *firſt*, it is certainly experience, that when we look at a near object with both eyes, according as it approaches or recedes from us, we alter the diſpoſition of our eyes, by leſſening or widening the interval between the pupils; this diſpoſition or turn of the eyes is attended with a ſenſation which ſeems to be that which, in this caſe, brings the judgment of greater or leſſer diſtance into the mind.

§ 17.

426. Not that there is any natural or neceſſary connexion between the ſenſation we perceive by the turn of the eyes, and the greater or leſſer diſtance; but becauſe the mind has, by conſtant experience, found the different ſenſations, correſponding to the different diſpoſitions of the eyes, to be attended, each, with a different degree of diſtance in the object, there has grown an habitual or cuſtomary connexion between them; ſo that the mind no ſooner perceives the ſenſation ariſing from the different turn it gives the eyes, in order to bring the pupils nearer or further aſunder, but it withal infers the different diſtance which was wont to be connected with that ſenſation: juſt as upon hearing a certain ſound, the ſignification is immediately ſuggeſted to the underſtanding, which cuſtom hath united with it.

§ 19.

427. I know it is a received opinion, that by altering the diſpoſition of the eyes, the mind perceives whether the angle of the optic axes, or the lateral angles comprehended between the interval of the eyes and the optic axes, are made greater or leſſer; and that, accordingly, by a kind of natural geometry, it judges the point of their interſection to be nearer or further off: but, that this is not true, I am convinced by my own experience, ſince I am not conſcious that I make any ſuch uſe of the perception I have by the turn of my eyes; and for me to make thoſe judgments, and draw thoſe concluſions, without knowing that I do ſo, ſeems altogether incomprehenſible.

§ 20.

428. From all which it follows, that the judgment we make of the diſtance of an object ſeen with both the eyes, is entirely the reſult of experience: if we had not conſtantly

§ 41.

432. Hence it is a manifeſt conſequence, that a man born blind, being made to ſee, would at firſt have no knowledge of diſtance by ſight; the ſun and ſtars, the remoteſt objects as well as the nearer, would all ſeem to be in his eye, or rather in his mind; the objects intromitted by ſight, would ſeem to him, as in truth they are, no other than a new ſet of thoughts or ſenſations, each of which is as near to him as the perceptions of pain or pleaſure: for our judging objects perceived by ſight to be at any diſtance, is entirely the effect of experience, which one in thoſe circumſtances could not yet have attained to.*

* This has been fully confirmed by Dr. Cheſelden, nineteen years after Berkeley's prediction; for, having couched a youth born blind, he relates, that when firſt he obtained his ſight, he was ſo far from making any judgment about diſtances, that he thought all objects whatever touched his eyes, as what he felt did his ſkin. 7 Phil. Tranſ. Abr. p. 491. 492. See above, the note on N°. 414.

§ 43.

433. And perhaps, on a ſtrict examination, we ſhall not find, that even thoſe who, from their birth, have grown up in a continued habit of ſeeing, are irrecoverably prejudiced on the other ſide; to wit, in thinking what they ſee to be at a diſtance from them; for at this time it ſeems agreed on all hands, by thoſe who have had any thoughts of that matter, that colours, which are the proper and immediate object of ſight, are not without the mind: but then it will be ſaid, by ſight we have alſo the perception of extenſion, and figure, and motion, all which may well be thought without, and at ſome diſtance from the mind, though colours ſhould not. In anſwer to this, I appeal to any man's experience, whether the viſible extenſion of any object doth not appear as near to him as the colour of that object; nay, whether they do not both ſeem to be in the very ſame place: is not the extenſion we ſee coloured, and is it poſſible for us, ſo much as in thought, to ſeparate and abſtract colour from extenſion? now

where the extenſion is, there ſurely is the figure, and there the motion too. I ſpeak of thoſe which are perceived by ſight.

§ 44.

434. But for a fuller explanation of this point, and to ſhew that the immediate objects of ſight are not even the reſemblances of things placed at a diſtance, it is requiſite that we look nearer into the matter, and carefully obſerve what is meant when one ſays, that which he ſees is at a diſtance from him. Suppoſe, for inſtance, that looking at the moon I ſhould ſay it were 50 or 60 ſemidiameters of the earth from me, let us ſee what moon this is ſpoken of; it is plain it cannot be exactly that which is viſible, or any thing like it, for that which I ſee is only a round luminous plain of about 30 viſible points in diameter; and, in caſe I am carried from the place where I ſtand, directly towards the moon, it is manifeſt its appearance varies ſtill as I go along, and, by the time I have advanced 50 or 60 ſemidiameters of the earth, I ſhall be ſo far from being near a little round luminous

luminous flat, that I ſhall perceive nothing like it, this object having long ſince diſappeared. Again, ſuppoſe I perceive, by ſight, the faint and obſcure viſion of ſomething, which I doubt whether it be a man or a tree, or a tower, but judge it to be at the diſtance of about a mile, it is plain I cannot mean, that exactly what I ſee is a mile off, or that it is the image or likeneſs of any thing which is a mile off, ſince, every ſtep I take towards it, the appearance alters, and from being obſcure, ſmall, and faint, grows clear, large, and vigorous; and when I come to the mile's end, that which I ſaw firſt is quite loſt, neither do I find any thing like it.

§ 45.

435. In theſe and the like inſtances, the truth of the matter ſtands thus: having of a long time experienced certain ſenſations, perceivable by touch, as diſtance, tangible figure, and ſolidity, to have been connected with certain ſenſations of ſight, I do, on perceiving theſe laſt, forthwith conclude what tangible ſenſations are, by the uſual courſe of nature,

ture, likely to follow; looking at an object, I perceive a certain viſible figure and colour, with ſome degree of faintneſs, and other circumſtances, which, from what I formerly obſerved, determine me to think, that if I advance forwards ſo many paces, or miles, I ſhall be affected with ſuch or ſuch ſenſations of touch: ſo that, in truth and ſtrictneſs of ſpeech, I neither ſee diſtance itſelf, nor any thing I take to be at a diſtance. I ſay, neither diſtance, nor things placed at a diſtance, are themſelves perceived by ſight: and I believe, whoever will look narrowly into his own thoughts, and examine what he means, by ſaying he ſees this or that thing at a diſtance, will agree with me, that what he ſees, only ſuggeſts to his underſtanding, that after having paſſed a certain diſtance, to be meaſured by the motion of his body, which is perceivable by touch, he ſhall come to perceive ſuch and ſuch tangible ſenſations, which have been uſually connected with ſuch and ſuch viſible ſenſations; but that one may be deceived by theſe ſuggeſtions, and that there is no neceſſary connexion between viſible and tangible

tangible ſenſations ſuggeſted by them, we need go no further to prove, than to the next looking-glaſs or picture.

§ 46.

436. From what we have ſhewn, it is a manifeſt conſequence, that the notions of *ſpace, outneſs*, and things placed at a diſtance, are not, ſtrictly ſpeaking, the objects of ſight; they are not otherwiſe perceived by the eye, than by the ear: ſitting in my ſtudy, I hear a coach drive along the ſtreet; I look through the caſement and ſee it; I walk out and enter into it; common ſpeech would incline me to think, I heard, ſaw, and touched the ſame thing, to wit, the coach: it is nevertheleſs certain, the ſenſations intromited by each ſenſe are widely different and diſtinct from each other; but having been obſerved conſtantly to go together, they are ſpoken of as one and the ſame thing: by the variation of the noiſe, I perceive the different diſtances of the coach, and know that it approaches, before I look out; thus, by the ear I perceive diſtance, juſt after the ſame manner as I do by the eye.

§ 47.

§ 47.

437. I do not nevertheleſs ſay, I hear diſtance, in like manner as I ſay that I ſee it, the ſenſations of hearing not being ſo apt to be confounded with the ſenſations of touch as thoſe of ſight are; ſo likewiſe a man is eaſily convinced, that bodies are not properly the objects of hearing, but only ſounds, by the mediation whereof the perception of this or that body is ſuggeſted to his thoughts; but then one is with more difficulty brought to diſcern the difference there is between the ſenſations of ſight and touch; though it be certain a man no more ſees and feels the ſame thing, than he hears and feels the ſame thing.

§ 48.

438. One reaſon of which ſeems to be this; it is thought a great abſurdity to imagine, that one and the ſame thing ſhould have any more than one extenſion and one figure; but the extenſion and figure of a body being let into the mind two ways, and that indifferently

ferently either by ſight or touch, it ſeems to follow, that we ſee the ſame extenſion and the ſame figure which we feel.

§ 49.

439. But if we take a cloſe and accurate view of things, it muſt be acknowledged, that we never ſee and feel the ſame object; that which is ſeen is one thing, and that which is felt is another. If the viſible figure and extenſion is not the ſame with the tangible figure and extenſion, we are not to infer that one and the ſame thing has divers extenſions; the true conſequence is, that the objects of ſight and touch are two diſtinct things. It may perhaps require ſome thought, rightly to conceive the diſtinction; and the difficulty ſeems not a little increaſed, becauſe the combination of viſible ſenſations hath conſtantly the ſame name as the combination of tangible ſenſations wherewith it is connected, which doth of neceſſity ariſe from the uſe and end of language.

§ 50.

§ 50.

440. In order therefore to treat accurately and unconfuſedly of viſion, we muſt bear in mind, that there are two ſorts of objects apprehended by the eye; the one primarily and immediately, the other ſecondarily and by the intervention of the former. Thoſe of the firſt ſort neither are nor appear to be without the mind, or at any diſtance off; they may indeed grow greater or ſmaller, more confuſed or more clear, or more faint, but they do not, cannot, approach or recede from us; whereas we ſay an object is at a diſtance, whenever we ſay it draws near or goes further off; we muſt always mean it of the latter ſort, which properly belong to the touch, and are not ſo truly perceived as ſuggeſted by the eye, as thoughts by the ear.

§ 51.

441. No ſooner do we hear the words of a familiar language pronounced in our ears, but

but the ideas corresponding thereto are ſuggeſted in the very ſame inſtant the ſound and the meaning enter the underſtanding: ſo cloſely are they united, that it is not in our power to keep out the one, except we exclude the other alſo; we even act in all reſpects as if we heard the very thoughts themſelves. So likewiſe the ſecondary objects, or thoſe which are only ſuggeſted by ſight, do often more ſtrongly affect us, and are more regarded than the proper objects of that ſenſe: hence it is we find it ſo difficult to diſcriminate between the immediate and mediate objects of ſight.

§ 52.

OF THE MAGNITUDE OF OBJECTS PERCEPTIBLE BY SIGHT.

442. It is the opinion of ſome, that we perceive it by angles, or by angles in conjunction with diſtance: but neither angles nor diſtance being perceivable by ſight, and the things we ſee being, in truth, at no diſtance from us, it follows that, as we have ſhewn lines and angles not to be the medium

the mind makes uſe of, in apprehending the apparent place of objects, ſo neither are they the medium whereby it apprehends their apparent magnitude.

§ 53.

443. It is well known, that the ſame extenſion at a near diſtance ſhall ſubtend a greater angle, and at a further diſtance a leſſer angle; and by this principle we are told the mind eſtimates the magnitude of an object, comparing the angle with which it is ſeen, with its diſtance. What inclines men to this miſtake (beſides the humour of making one ſee by geometry) is, that the ſame perceptions which ſuggeſt diſtance, do alſo ſuggeſt tangible magnitude; but if we examine it, we ſhall find they ſuggeſt the latter as immediately as the former: I ſay, they do not firſt ſuggeſt diſtance, and then leave it to the judgment to uſe that as a medium, whereby to collect the tangible magnitude, but they have as cloſe and immediate a connexion with the magnitude as with the diſtance, and ſuggeſt

geſt it as independently of diſtance, as they do diſtance independently of magnitude.

§ 54.

444. It hath been ſhewn there are two ſorts of objects apprehended by ſight, each whereof hath its diſtinct magnitude or extenſion; the one properly *tangible*, i. e. to be perceived and meaſured by touch, and not immediately falling under the ſenſe of ſeeing; the other properly and immediately viſible, by mediation of which the former is brought in view.* Each of theſe magnitudes are greater or leſſer, according as they contain in them more or fewer points, they being made up of points, or *minimums*; for, whatever may be ſaid of extenſion, in the abſtract, it is certain, ſenſible extenſion is not infinitely diviſible. There is a *minimum tangibile* and a *minimum viſible*, beyond which ſenſe cannot perceive. This every one's experience will inform him.

* That magnitude is perceived immediately by ſight, is evident from Cheſelden's Experiment; for the boy who obtained the power of ſeeing thought the things he ſaw extremely large. Yet quere.

§ 55.

445. The magnitude of the object, which is barely ſuggeſted and is at a diſtance, continues always invariably the ſame; but the viſible object, ſtill changing as you approach to, or recede from the tangible object, it hath no fixed and determinate greatneſs; whenever, therefore, we ſpeak of the magnitude of any thing, for inſtance, a tree or a houſe, we muſt mean the tangible magnitude, otherwiſe there can be nothing ſteady and free from ambiguity ſpoken of it; but though the tangible and viſible magnitudes, in truth, belong to two diſtinct objects, I ſhall, nevertheleſs, (eſpecially ſince thoſe objects are called by the ſame name, and are obſerved to coexiſt) to avoid tediouſneſs and ſingularity of ſpeech, ſometimes ſpeak of them as belonging to one and the ſame thing.

§ 56.

446. Now in order to diſcover by what means the magnitude of tangible objects is perceived

perceived by ſight, I need only reflect on what paſſes in my own mind, and obſerve what thoſe things be which introduce the judgment of greater or leſſer into my thoughts, when I look on any object; and theſe I find to be, firſt, the magnitude or extenſion of the viſible object, which being immediately perceived by ſight, is connected with that other which is tangible and placed at a diſtance; ſecondly, the confuſion or diſtinctneſs; and, thirdly, the vigorouſneſs or faintneſs of the aforeſaid viſible appearance; *cæteris paribus*, by how much the greater or leſſer the viſible object, by ſo much the greater or leſſer do I conclude the tangible object to be; but be the viſible ever ſo large, yet, if it be withal confuſed, I judge the magnitude of the thing to be but ſmall; if it be diſtinct and clear, I judge it greater.

§ 57.

447. Moreover the judgment we make of magnitude, do, in like manner as thoſe of diſtance, depend on the diſpoſition of the eye; alſo on the figure, number, and ſituation, of

objects, and other circumſtances that have been obſerved to attend ſmall tangible magnitudes; thus, for inſtance, the very ſame quantity of viſible extenſion, which in the figure of a tower, doth ſuggeſt the judgment of great magnitude, ſhall in the figure of a man ſuggeſt the judgment of a much ſmaller magnitude: that this is owing to the experience we have of the uſual bigneſs of a tower and a man, no one I ſuppoſe need be told.

§ 60.

448. A man placed at ten feet diſtance, is thought as great as if he were placed at the diſtance of only five feet; which is true, not with relation to the viſible, but tangible greatneſs of the object, the viſible magnitude being far greater at one ſtation than it is at the other.

§ 61.

449. Inches, feet, &c. are ſettled ſtated lengths, whereby we meaſure objects and eſtimate their magnitude; now that theſe cannot

cannot be mere viſible inches, &c. is evident, becauſe a viſible inch is itſelf no conſtant determinate magnitude, and cannot therefore ſerve to mark out and determine the magnitude of any other thing; and to ſay this or that number of inches, ſhall imply no more than it is extended, without bringing any particular judgment into the mind. Further, an inch and a foot, from different diſtances, ſhall both exhibit the ſame viſible magnitude, and yet at the ſame time you ſhall ſay, that one ſeems ſeveral times greater than the other. From all which it is manifeſt, that the judgments we make of the magnitudes of objects by ſight, are altogether in reference to their tangible extenſion, and not the viſible extenſion, which, though immediately perceived, is little noticed.

§ 85.

450. When we look through a microſcope, we neither ſee more viſible points, nor are the collateral points more diſtinct, than when we look with the naked eye at objects placed at a due diſtance: it brings us, as it were, into a new world; it preſents us with a new ſcene

of viſible objects, quite different from what we behold with the naked eye; but, whereas the objects perceived by the eye alone, have a certain connexion with tangible objects, whereby we are taught to foreſee what will enſue on the approach or application of diſtant objects to the parts of our own bodies, which conduce to their preſervation, there is not the like connexion betwixt things tangible and thoſe viſible objects that are perceived by the help of a fine microſcope. When I look through a microſcope, my aim is to know what ſenſations are connected with each other; the more a man knows of the connexion of theſe, the more he is ſaid to know of nature. (Third Dialogue of Hylas and Philonous).

Of Situation.

§ 93.

451. It is certain, that a man actually blind, and who had continued ſo from his birth, would, by the ſenſe of feeling, obtain the knowledge of upper and lower; by the motion of his hand, he might diſcern the ſituation of any tangible object placed within his

his reach. That part on which he felt himſelf ſupported, or towards which he perceived his body to gravitate, he would term *lower*, and the contrary to this, *upper*, and accordingly denominate whatever objects he touched.

§ 94.

452. But, then, whatever judgments he makes concerning the ſituation of objects, are confined to thoſe only that are perceivable by touch; all thoſe things that are intangible, as his thoughts, deſires, or paſſions, and in general all the modifications of his ſoul, to theſe he would never apply the terms upper and lower, except only in a metaphorical ſenſe.

§ 95.

453. Whence it plainly follows, that ſuch a one, if made to ſee, would not at firſt ſight think that any thing he ſaw was high or low, as ſhewn § 41. The proper objects of viſion make a new ſet of perceptions perfectly diſtinct and different, and which can in no ſort be perceived by touch; there is nothing to induce him to think thoſe terms applicable to them;

them; nor would he ever think it until he obſerved their connexion with tangible objects.

§ 99.

454. When he has, by experience, learned the connexion there is between the ſeveral ſenſations by ſight and touch, he will be able, by the perception he has of the ſituation of viſible things, in reſpect of one another, to make a ſudden and true eſtimate of the ſituation of tangible things correſponding to them; and thus perceive, by ſight, the ſituation of objects which do not properly fall under that ſenſe.

Of Figure.

§ 105.

455. As the viſible magnitude hath no connexion with the tangible, it is plain the viſible figure hath no neceſſary connexion with the tangible figure, ſo as at firſt ſight to introduce it into the mind: for figure is the termination of magnitude.

§ 106.

456. Hence we may clearly deduce, that in

in the firſt act of viſion, no perception entering by the eye would have a perceivable connexion with the ſenſations to which the names *man*, *head*, *foot*, were annexed in the underſtanding of a man blind from his birth, ſo as to make themſelves be called by the ſame names, and reputed the ſame things with them, as afterwards they come to be.

§ 107.

457. There remains, however, one difficulty which may ſeem to preſs hard upon our opinion; for though it be granted, that neither the colour, ſize, nor figure of the viſible feet, have any neceſſary connexion with the ſenſations that compoſe the tangible feet; yet it remains undeniable, that the number of the viſible feet being the ſame as that of the tangible feet, I may, without any experience, reaſonably conclude, that they repreſent, or are connected with, the feet, rather than with the head. It ſeems that the ſight of two viſible feet will ſooner ſuggeſt to the mind the idea of two tangible feet, than of one head; ſo that the blind man, upon the firſt reception of the viſive faculty, might know which were

the feet, or number *two*, and which the head, or number *one*.

§ 108.

458. To get clear of this ſeeming difficulty, we need only obſerve, that diverſity of viſible objects doth no neceſſarily infer diverſity of tangible objects, correſponding with them. A picture painted with a great variety of colours, affects the touch in one uniform manner; it is therefore evident, that I do not neceſſarily judge of the number of things tangible from the number of things viſible; how therefore can I, before experience teaches me, that the viſible legs, becauſe two, are connected with the tangible legs; or that the viſible head, becauſe *one*, is connected with the tangible head? The things I ſee, are ſo very different and heterogeneous from the things I feel, that the perception of the one would never have ſuggeſted the other to my thoughts until I had experienced their connexion.

§ 124

459. It is commonly ſaid, that the object

of

of geometry is abſtract extenſion; but geometry contemplates figures: now figure is the termination of magnitude, but extenſion, in the abſtract, hath no finite magnitude, whence it clearly follows it can have no figure, and conſequently is not the object of geometry. And though it is commonly held, that all general truths are concerning univerſal abſtract ideas, without which, we are told, there could be no ſcience, no demonſtration of any general propoſition in geometry, it were no hard matter, were it now neceſſary, to ſhew that propoſitions and demonſtrations in geometry might be univerſal, though they who make them, never think of abſtract general ideas of triangles or circles.*

§ 128.

460. When, on perceiving any thing, I range it under this or that ſort of perception, it is becauſe it is perceived after the ſame manner, or becauſe it has a likeneſs or conformity with, or affects me in the ſame way as, perceptions of the ſort I rank it under.

* See Chap. 3.

In

In ſhort, it muſt not be entirely new, but have ſomething in it old and already perceived by me: it muſt, I ſay, have ſo much, at leaſt, in common with the perceptions I have before known and named, as to make me give it the ſame name with them: but it has been, if I miſtake not, clearly made out, that a man born blind, would not, at firſt reception of his ſight, think the things he ſaw were of the ſame nature with the objects of touch, or had any thing in common with them, but that they were a new ſet of ſenſations, perceived in a new manner, and entirely different from all he had ever perceived before: ſo that he would not call them by the ſame name, nor repute them to be of the ſame ſort, with any thing he had hitherto known. Note, this was fully confirmed by Cheſelden's experiment; for, the boy, on being made to ſee, could not diſtinguiſh a cat from a dog, nor know by ſight the cat, he before knew by the touch.

§ 130.

461. It is a prevailing opinion, even among thoſe who have thought and written moſt accurately concerning our ideas, that ſomething

thing more is perceived by ſight, than barely light and colours, with their variations. Mr. Locke terms ſight the moſt comprehenſive of all our ſenſes, conveying to our minds the ideas of light and colours, which are peculiar only to that ſenſe; and alſo the far different ideas of ſpace, figure, and motion; B. 2. chap. 9. § 9. Space, or diſtance, we have ſhewn, is not otherwiſe the object of ſight, than of hearing; Vid. § 46. And as for figure and extenſion, I leave it to any one, that ſhall calmly attend to his own clear and diſtinct ideas, to decide whether he has any perception intromitted immediately and properly by ſight, ſave only light and colours; but by the mediation of theſe, far different ideas are ſuggeſted; but ſo they are by hearing, which beſides ſounds, doth by their mediation ſuggeſt not only ſpace, figure, and motion, but alſo all other ideas whatſoever, that can be ſignified by words.

§ 132.

462 A further confirmation may be drawn from the ſolution of Mr. Molineaux's Problem, publiſhed by Mr. Locke, in his Eſſay: "ſuppoſe a man

a man born blind, and now adult, and taught by his touch to diſtinguiſh between a cube and a ſphere of the ſame metal, and nearly of the ſame bigneſs, ſo as to tell when he felt one and the other which is the cube and which the ſphere, and ſuppoſe both placed on a table, and the blind man made to ſee; quere, whether by his ſight, without touching them, he could now diſtinguiſh and tell which is the globe and which the cube? To which the propoſer anſwers, *not*; for, though he has had experience how the globe and how the cube affects his touch, yet he has not yet attained the experience, that what affects his touch ſo or ſo, muſt affect his ſight ſo or ſo: or that a protuberant angle in the cube, that preſſed his hand unequally, ſhall appear to his eye as it doth in the cube." I agree with my friend, in his anſwer to this problem, and am of opinion, that the blind man, at firſt ſight, would not be able with certainty to ſay, which was the globe, which the cube, whilſt he only ſaw them. Locke, B. 2. chap. 9. ſec. 8.*

* See this queſtion well treated in the Memoirs of Berlin, for 1770, and the following years.

§ 133.

§ 133.

463. Now if a ſquare ſurface perceived by touch, be of the ſame ſort with a ſquare ſurface perceived by ſight, it is certain the blind man here mentioned might know a ſquare ſurface as ſoon as he ſaw it: ſince therefore he is ſuppoſed to have known by his touch, that a cube is a body terminated by ſquare ſurfaces, and that a ſphere is not, upon the ſuppoſition that a viſible and a tangible ſquare differ only *in numero*, it follows that he might know, by the unerring mark of the ſquare ſurfaces, which was the cube and which not, while he only ſaw them; elſe the ſolution given by theſe two thoughtful and ingenious men is wrong.

Of viſible Motion.

464. That viſible motion is not of the ſame ſort as tangible motion, ſeems to need no further proof, it being an evident corollary, from what we have ſhewn, concerning the difference

between viſible and tangible extenſion; but, for a more expreſs proof hereof, we need only obſerve, that one who had not yet experienced viſion, would not at firſt ſight know motion; whence it follows, that motion perceivable by ſight, is of a ſort diſtinct from motion perceivable by touch; which I prove thus; by touch he could not perceive any motion but what was up or down, to the right or left, nearer or further from him. Beſides theſe and their ſeveral complications, it is impoſſible he ſhould have any idea of motion; he would not therefore think any thing to be motion, or give the name *motion* to any perception, which he could not range under ſome or other of thoſe particular kinds thereof: but, from ſec. 95, it is plain, by the mere act of viſion, he could not know motion upwards or downwards, to the right or left, or in any other poſſible direction; therefore he would not know motion at all at firſt ſight.

§ 139.

465. It may be aſked, how viſible extenſion and figures come to be called by the ſame name

name with tangible extenſion and figures, in all ages and nations, if they are not of the ſame kind?

§ 140.

466. To which I anſwer, we can no more argue a viſible and tangible ſquare to be of the ſame ſpecies, from their being called by the ſame name, than we can, that a tangible ſquare, and the monoſyllable conſiſting of ſix letters whereby it is marked, are of the ſame ſpecies, becauſe they are both called by the ſame name. It is cuſtomary to call written words and the things they ſignify by the ſame name; for words not being regarded for their own ſake, or otherwiſe than as they are marks of things, it were ſuperfluous, and beſide the deſign of language, to have given them names diſtinct from thoſe of the things marked by them: the ſame reaſon holds here alſo. Viſible figures are the marks of tangible figures; in themſelves they are little regarded, or upon any other ſcore than for their connexion with tangible figures, which by nature they are ordained to ſignify; we regard the objects that

environ us, in proportion as they are adapted to benefit or injure our own bodies, and thereby produce in our minds the ſenſations of pleaſure or pain; now bodies operating on our organs by an immediate application, and the hurt or advantage ariſing therefrom depending altogether on the tangible and not on the viſible qualities of any object, this is a plain reaſon why thoſe ſhould be regarded by us, much more than theſe: and for this end the viſive faculty ſeems to have been beſtowed on animals, that by the perception of viſual ſenſations they may be able to foreſee, from the experience they have had, what tangible ſenſations are connected with ſuch or ſuch viſual ſenſations. And becauſe this language doth not vary in different ages or nations, hence it is, that in all times and places, viſible figures are called by the ſame names as the reſpective tangible figures ſuggeſted by them, and not becauſe they are alike, or of the ſame ſort with them.

§ 141.

467. But, ſay you, a tangible ſquare is liker to a viſible ſquare than to a viſible circle; it has four angles and as many ſides; ſo alſo has a viſible ſquare; but the viſible circle has no ſuch thing, being bounded by one uniform curve, without right lines or angles, which makes it unfit to repreſent the tangible ſquare; from whence it ſeems to follow, that viſible figures are patterns of, or of the ſame ſpecies as the reſpective tangible figures repreſented by them; that they are like to them, and of their own nature fitted to repreſent them, and in no reſpect arbitrary, as words are.

§ 142.

468. I anſwer, it muſt be acknowledged, the viſible ſquare is fitter than the viſible circle to repreſent the tangible ſquare: but it is not becauſe it is liker, or more of a ſpecies with it, but becauſe it contains in it ſeveral diſtinct parts, whereby to mark the ſeveral diſtinct correſponding parts of a tangible ſquare.

The ſquare perceived by the touch, hath four diſtinct equal ſides and four diſtinct equal angles; it is therefore neceſſary, that the viſible figure which ſhall be moſt proper to mark it, contain four diſtinct equal parts, whereby to denote the four equal angles of the tangible ſquare, and four diſtinct equal parts correſponding to the four ſides of the tangible ſquare.

§ 143.

469. But it will not hence follow, that any viſible figure is like unto, that is, of the ſame ſpecies with its correſponding tangible figure, unleſs it be ſhewn, that not only the *number* but the *kind* of parts, be the ſame in both, no more than that a wooden and a metallic ſquare are of the ſame ſpecies. To illuſtrate this, I obſerve, that viſible figures repreſent tangible figures, much after the ſame manner that written words do ſounds. Now in this reſpect, words are not arbitrary, it not being indifferent what written word ſtands for any ſound, for it is requiſite that each word contain in it ſo many diſtinct characters as there

are

are variations in the ſounds it ſtands for; thus the ſingle letter *a* is proper to mark one ſimple uniform ſound, and the word *adultery* is accommodated to repreſent the ſound annexed to it: in the formation thereof, there being eight different colliſions or modifications of the air by the organs of ſpeech, each of which produces a difference of ſound, it was fit the word repreſenting it ſhould conſiſt of as many diſtinct characters, thereby to mark each particular difference or part of the whole ſound; and yet nobody, I preſume, will ſay, the ſingle letter *a*, or the word *adultery*, are like unto, or of the ſame ſpecies with the reſpective ſounds by them repreſented.

§ 144.

470. It muſt be confeſſed, that we are not ſo apt to confound other ſigns with the things ſignified, or to think them of the ſame ſpecies, as we are viſible and tangible ſenſations; but a little conſideration will ſhew us how this may be, without our ſuppoſing them of a like nature. Theſe ſigns are conſtant and univerſal; their connexion with tangible ſenſations has been learnt from our firſt entrance into the

world, and ever ſince, almoſt every moment of our lives, it has been occurring to our thoughts, and ſtriking deeper into our minds: when we obſerve that ſigns are variable, and of human inſtitution; when we remember there was a time they were not connected in our minds with thoſe things they now ſo readily ſuggeſt, but their ſignification learned by the ſlow ſteps of experience; this preſerves us from confounding them. But when we find the ſame ſigns ſuggeſt the ſame things all over the world; when we know they are not of human inſtitution, and cannot remember that we ever learned their ſignification, but think that at firſt ſight they would have ſuggeſted to us the ſame things they do now; all this perſuades us they are of the ſame ſpecies as the things reſpectively repreſented by them, and that it is by a natural reſemblance they ſuggeſt them to our minds, independently of experience.

§ 147.

471. Upon the whole, I think we may fairly conclude, that the proper objects of viſion conſtitute an univerſal language of the

Author

Author of nature, whereby we are inſtructed how to regulate our actions, in order to attain thoſe things which are neceſſary for the preſervation and well-being of our bodies, as alſo to avoid whatever may be hurtful and deſtructive of them.

SECT. V.

OF TACTILE SENSATIONS, OR WHICH APPERTAIN TO THE SENSE OF TOUCH.

472. Of all ſenſations, the moſt important to us are the tactile, which we receive by the organs of touch diſperſed all over our bodies: ſuch is the general ſenſation of reſiſtance, which comprehends hardneſs or ſolidity, ſoftneſs or fluidity, roughneſs, ſmoothneſs, ſharpneſs, bluntneſs, heat, cold, and motion; and the continuation of any of them, which is called extenſion; alſo their various degrees; to which we may add various ſenſations, whether afflictive or pleaſurable, manifeſt and diſtinct, or obſcure and undefined; ſuch as various pains, aches, laſſitude or reſt, refreſhment, exerciſe, drowſineſs, &c.

473. *Note*, the abſtract terms here employed,

ployed; do not denote any abſtract qualities, but are uſed merely as abbreviations.

474. The various ſenſations of *reſiſtance* are thoſe, which we in general call *bodies*,* whether the reſiſtance be made by them; as that made by the groſſer bodies; or that made to the moſt ſubtle, as light and electricity. They are impreſſed on our minds by the author of nature, according to certain conſtant laws, connected with each other, and varied in various circumſtances, but uniform in the ſame: theſe aſſure us of the reality of things, and diſtinguiſh them from dreams and fictions of imagination. Hence alſo thoſe bodies which preſent the leaſt reſiſtance, were by many deemed of a ſpiritual nature.

475. The order, regularity, and conſiſtency, of ſenſations of any kind, diſcovered by experience, form what is called the uſual *courſe of*

* Dr. Berkeley having improperly called theſe ſenſations *ideas*, unfortunately gave occaſion to his opponents to confound them with ideas of imagination, or mere fictions, though he expreſsly called them *ideas of ſenſe*, and declared he called them *ideas*, only becauſe, like ideas of imagination, they exiſt only in the mind. Principles, ſec. 33, 38, 90, 91, 95; and in his Third Dialogue. This Dr. Reid has the candour to acknowledge.

nature,

nature, being grounded on laws independent of the will of man, and hence called the *laws of nature*.

476. The *names* of bodies comprehend all the ſenſations, whether of colour, ſmell, taſte, figure, that accompany them, or belong to them; and all their phyſical properties, as flexibility, elaſticity, electricity; and alſo the various phænomena they exhibit, in chymical experiments. Beſides theſe properties nothing elſe can be found in them; when ſeparately conſidered, they are often called the qualities or properties of the aggregate on which a name is beſtowed. Thus a *roſe* denotes a vegetable of a red or white colour, of a peculiar ſmell, taſte, and figure; which colours, and ſmell, and figure, are called its *qualities*, or properties. So *gold* is a name given to the ſenſation of a peculiar hardneſs, weight, extenſibility, and fuſibility, accompanied with a ſhining yellow colour, and exhibiting various phænomena, when chymically examined.

477. The ſenſation of reſiſtance, when conſiderable, conſtitutes what is called *hardneſs*, or a hard body; as the ſenſation of ſweetneſs conſtitues what is called ſweetneſs, or a ſweet body.

body. When the reſiſtance is leſs conſiderable, ſo as to yield without pain to a ſlight impreſſion, the body is denominated *ſoft*. When ſtill leſs conſiderable, it conſtitutes a *liquid*. And when its reſiſtance, while at reſt and unconfined, is ſcarcely perceptible, and it is alſo inviſible for the moſt part, it is called *a fluid*. All theſe modifications of reſiſtance are ſuſceptible of various degrees; even electron, caloric, and light, meet with ſome.

478. *To feel* is to receive a ſenſation by the touch, as to *hear* is to receive a ſound by the ear, and to *ſee* is to perceive a colour or light; to *taſte* or *ſmell*, is to receive one or other of their different ſpecies reſpectively; the only difference is, that we learn by experience to connect colours, ſound, taſtes, and ſmells, with certain tangible ſenſations, and their aſſociation or union we call *things*; thus we ſay, a *coloured thing*, an audible thing, a ſweet things, &c.; but a tactile ſenſation being referable to no other ſave the above, and not always to any of them, for inſtance in the dark, or thoſe of the blind, is ſimply called a *thing* or *reality*; more eſpecially as it is to us of the greateſt importance: even bodily pain is called a thing,

a thing; ſo we ſay the gout is a painful thing. It is plain that, in all theſe caſes, the word *thing* denotes nothing more than a ſenſation, or a group of ſenſations: nay this word has been applied, though figuratively, even to ideas of imagination, as in the ſecond Pſalm, "why did the people *imagine a vain thing*."

479. Hence to feel hardneſs, ſoftneſs, &c. is tantamount to feeling a hard or ſoft thing, theſe being the objects of thoſe perceptions, or what is felt, and nothing elſe.

480. The ſenſation of reſiſtance, or what is the ſame thing, a *body*, frequently contains numerous parts; and beſides the reſiſtance that each of them offers, the whole of them reſiſts ſeparation from each other; and from the greater or leſſer difficulty, with which this ſeparation is effected, the body is denominated *hard* or *ſoft*, &c. as already ſaid, N° 477. Hence there are two ſpecies of reſiſtance, or hardneſs; one, that of each individual particle, or *minimum tangibile*, which is *abſolute*, as it cannot be deſtroyed without annihilation of the body; the other, that of the ſeparation of the particles, which is entirely relative. When, as Mr. Locke obſerves, the difficulty

is

is ſuch, that it will put us to pain before we can make the body change its figure, the body is denominated *hard*; but if the change of figure can be effected without pain, the body is denominated *ſoft*. Hence Auguſtus King of Poland, or Mareſhal Saxe, who could with their hands bend a horſe-ſhoe and cruſh a crown piece, would undoubtedly find many bodies ſoft, which we call hard; and a fly which can run upon water muſt find it hard, though to us it appears ſoft: theſe denominations therefore, in this caſe, are merely relative to our different ſenſations, and denote nothing abſolute.

481. That there exiſts an adherence or coheſion of particles to each other, at the period of their ſeparation, is not denied; but it does not exiſt before the difficulty of ſeparation is experienced; for it is felt, and therefore is a ſenſation. Yet an eminent profeſſor aſks,* who would reaſon with a man who ſhould affirm, that diamonds are not hard before they are handled? He is not aware that, by calling a ſtone a diamond, he already ſuppoſes it hard, hardneſs being included in the ſignification of

* Reid on the Human Mind, chap. 5. ſec. 2. p. 103.

the

the word diamond, (ſee N° 476.) A ſtone indeed may be preſumed to afford the ſenſation of hardneſs when tried, as this is *ſuggeſted* by other external characters; but no jeweller will aſſure him of its actual exiſtence, until he has experienced it; and then he judges it to have pre-exiſted, becauſe he is certain he would have perceived the ſame difficulty at any former period, if he had ſubjected it to the ſame trial: this he infers from the immutability of the ſtone; ſo that in every caſe a reference is made to the peculiar ſenſation. The profeſſor is therefore miſtaken in ſaying, that hardneſs or ſoftneſs are neither ſenſations, nor like any ſenſation; do not his own expreſſions, *firmneſs* or *eaſe* of change, allude to ſenſations? otherwiſe they would be unintelligible: his diſtinction of hardneſs, which is a ſenſation, and hardneſs, which is not a ſenſation, but a phyſical quality, is totally unfounded: indeed the conſciouſneſs of their identity ſeems to force itſelf upon him, for he allows that it is difficult to disjoin the ſenſation from what he calls the external quality of hardneſs, in whoſe ſhadow, he ſays, it is apt immediately to hide itſelf: this a philoſopher,

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he adds, muſt attain by pains and practice. This paragraph ſurely requires no further animadverſion; more eſpecially as he owns, "that no man can ſhew by any good argument, that all our ſenſations might not have been as they are, though no body or quality of body had ever exiſted."*

482. *Solidity*, in natural philoſophy, is juſtly defined, by Mr. Locke, to be the reſiſtance which we find in one body, to the entrance of another body into the ſpace it occupies, until it has left it: it is therefore a ſenſation, and its reſult being negative, is called *impenetrability:* in effect, penetration would imply the annihilation of the body penetrated, an effect which nature does not admit. Yet in ſome experiments, a partial penetration takes place in appearance, as in ſome metallic alloys, mixtures of ſulphuric acid and water, or alcohol and water, from a cloſer approximation of the parts of both, than there previouſly exiſted of the parts of either.

483. *Solidity in geometry* denotes the quantity of ſpace contained in a body, and thence

* P. 105, 107, 115.

called

called its ſolid or cubic contents, or volume. *Maſs* denotes the quantity of particles *(minima tangibilia)* contained in a given volume.

484. *Heat* and *cold* are acknowledged to be ſenſations received by the ſenſe of touch: yea they affect our whole frame more univerſally than any other ſenſations do; hence we ſay we are hot or cold, but we cannot ſay when we ſee a colour, that we are coloured; or when we perceive a ſweet or bitter taſte, that we are ſweet or bitter; or when we feel extenſion, that we are extended, &c. Theſe denominations are even beſtowed on other tangible ſenſations (commonly called bodies) which are not properly their ſubject: thus a lighted coal is called *hot*, and ice is called *cold*, becauſe on their approach, or contact with the organs of touch, thoſe ſenſations are impreſſed upon us. In the ſame manner as certain tangible ſenſations are called coloured, when in their preſence either actually felt or conceived, colours are perceived.

485. An eminent profeſſor thinks, it were abſurd to ſuppoſe that a thermometer could not riſe or fall, unleſs ſome perſon were preſent; I ſhould think it abſurd to ſuppoſe that a ther-

mometer could even exiſt without being perceived by ſome mind, either human, angelic, or divine; it being nothing more than an aggregate of ſenſations, or perceptions, according to the difference of the minds that perceive it.

486. It appears to me, that the cauſe of the ſenſation of heat, and of the other effects attributable to it, is not itſelf a ſenſation of any kind, but a peculiar exertion of the divine agency, regulated by various laws, in various circumſtances, though invariable in each. Its moſt general effect is an internal motion of the parts on which it operates, as cold is produced on the diminution of that motion. This exertion is now generally called *caloric*, which is only an expreſſion of the nature of an algebraic ſign, bywhich the cauſe is more commodiouſly expreſſed.

487. *Extenſion* conſiſts in the continuation of the ſenſation of reſiſtance in its various degrees, whether of hardneſs, liquidity, or fluidity; if, therefore, there be but one reſiſting particle, there can be no extenſion. In this definition I have the pleaſure of agreeing with Mr. Locke: he tells us, that the extenſion of

body

body is nothing but the coheſion, or *continuity*, of ſolid, ſeparable, moveable parts.*

488. A few may object, that ſome bodies are extended that yet offer no reſiſtance, as calm air; but the very act of inſpiration may undeceive them.

489. *Figure*, Mr. Locke juſtly defines to be the relation which the parts of the termination of an extended body have among themſelves, and conſequently of the termination of diſtinct though continued ſenſations.

490. *Place* is the ſituation of a body relatively to others apparently at reſt, or moved with equal velocity in the ſame direction; thus a body may be ſaid to be in the ſame, or in a different place, relatively to the bodies with which its ſituation is compared.

491. *Motion* is a change of place; or may more accurately be defined the ſucceſſive perſevering exiſtence of a body, or of ſome of its parts, in different places. I ſay *perſevering*, becauſe if a body were annihilated in one place, and again created in another, it could not be ſaid to have been moved.

* Book ii. chap. iv. ſec. 5.

492. The diſtance traverſed by a moving body, compared with the time employed in the traverſe, conſtitutes what is called its velocity, and is evidently ſo much the greater, as the diſtance traverſed is wider, and the interval of time ſmaller.

493. The quantity of moving particles, that is, ſolid and extended particles, contained in a moving body, commonly called its maſs, multiplied into its velocity, conſtitutes the quantity of its motion.

494. *Diſtance* denotes the greater or leſſer number of ſenſations of reſiſtance, that are either perceived or conceived, between the two extremes ſaid to be diſtant from each other. Space denotes alſo the ſame diſtance or interval, but relatively to the poſſible exiſtence of intervening bodies.

495. *Motion* is ſaid to be either relative or abſolute, though in fact abſolute motion is impoſſible. *Relative*, when the ſituation of a body is changed with reſpect to the bodies immediately contiguous to it, and apparently at reſt, or at leaſt moved with leſs apparent velocity in the ſame direction. *Abſolute*, when its ſituation is changed with reſpect to more diſtant bodies apparently quieſcent: hence a relation

relation to other bodies is eſſentially included in the conception of motion; and if there were only one body in exiſtence, it could not be moved. This I have elſewhere ſhewn.

496. *Reſt* is a mere negation of motion, for it is unſuſceptible of degrees; whereas motion is ſuſceptible of various degrees of velocity, and of various directions, and implies a poſitive action, namely, that of the Supreme Being, by whom alone, or through whoſe indulgence, by the human mind, motion can be effected, according to certain laws by him conſtituted.

497. Dr. Watſon, in his admirable treatiſe on time, ſhews, that a body in apparently inceſſant motion occupies more ſpace than when at reſt; and thus, on principles which he alone diſcovered; completely anſwers Zeno's Achilleum, which never before had been ſatisfactorily refuted, on rational principles.

498. *Force* is a term uſed to denote the extent of the divine agency, known by its effects or concomitant circumſtances, and is not an imcomprehenſible ſhadowy being paſſing from one body into another, as ſome philoſophers have imagined.

499. Yet, as the Divine energy operates, as if ſomething really paſſed from one body to another, this term is a uſeful compendious expreſſion, and as ſuch, uſed in various calculations of motion or reſiſtance, &c. in various occaſions.

500. We often *ſee* bodies ſtrike each other with great force, while we ourſelves feel nothing, becauſe the tangible ſenſations are not then in our minds, but are barely *ſuggeſted* by the viſible, which are their ſigns; or by their effects, which indicate what we ſhould feel, if expoſed to the force or agency then exerted. See N° 405.

501. It undoubtedly ſounds harſh to ſay, that one ſenſation impinges on another, or claſhes with another; but this is ſaying no more, than that one object is perceived to ſtrike another object alſo perceived. Of ſuch oppoſition and claſhing of the internal modifications of the mind, we have ſeveral examples; thus judgments claſh with each other, when we doubt, and our volitions during the ſtriſe of paſſions, or the conteſts of judgment and paſſion. We advance nothing but what we conceive; whereas, the hyloiſts are obliged to ſay,

ſay, when one body ſtrikes another, that *an unintelligible ſomething ſtrikes another unintelligible ſomething*, opening a door to atheiſtical myſtery, and the utter ſubverſion of human reaſon.

502. *Gravity* denotes the tendency which bodies manifeſt, in certain circumſtances, to moving to the earth, or to the earth's centre. If we ſupport a heavy body, we feel a degree of pain or laſſitude: this tendency then exiſts, ſince it produces that effect: we alſo perceive this motion accelerated, if the heavy body be unſupported; therefore, in all ſuch caſes, the Divine agency is exerted. But where it produces no effect whatſoever, as where a heavy body reſts on another that is quieſcent; for inſtance, a ton of lead on a ſolid rock; its tendency downwards cannot be ſuppoſed to exiſt; for to ſuppoſe a cauſe in action, and yet producing no effect, is an evident contradiction. Beſides, the force of gravity cannot be diſtinguiſhed from its *momentum:* now the *momentum* is the product of the maſs multiplied into the celerity; where, therefore, there is no celerity, there can be no *momentum*, and conſequently no force of gravitation.

503. *Univerſal attraction* denotes the tendency which the planets have, through the Divine agency, to approach to the ſun and to each other, as *chynical* or *elective attraction* does that which bodies of different ſpecies have to others, in certain circumſtances.

504. Tactile ſenſations are variouſly mixed and diverſified: their different collections are marked by different names: thus one is called *fleſh*, another *wood*, another *earth*, another *ſtone*, another *metal*, another *wool*, another *ſilk*, &c. &c.; and the ſame may be ſaid of colours, taſtes, and ſmells.

SECT. VI.

OF THE HUMAN BODY AND OBSCURE SENSATIONS.

505. There is a ſet of cloſely-connected tangible ſenſations, with ſome or other of which the human mind is conſtantly impreſſed, from the earlieſt origin of life until its final extinction, whoſe aggregate conſtitutes the human body.

506 From the peculiar diſpoſition of theſe ſenſations, ariſes an organization, whoſe peculiarity

liarity and integrity is a neceſſary condition to the different ſenſations allotted to different parts of the aggregate, ſuch as that of the eyes, ears, &c. the ſenſation of tact alone being diſtributed through the whole aggregate.

507. In addition to the peculiarities of organization, this aggregate differs from all other ſenſations in many particulars.

508. Firſt, parts of it, ſuch as the tongue, hands, legs, and feet, are ſubjected to the control of the will, and other parts are affected even involuntarily by the paſſions and imagination.

509. Secondly, theſe appropriate ſenſations are diſtinguiſhed from adventitious ſenſations by a double reference to the ſentient principle: whereas, the adventitious afford only a ſingle reference thereto. Thus, if I touch one hand with the other, I have a perception of their contact, in each; but if I touch a ſtone with my hand, I have a ſenſe of their contact, not in the ſtone, but in my hand.

510. They differ alſo in another circumſtance, the adventitious ſenſations not being the ſeat of either pain or pleaſure, whereas the apropriate are the proper ſeat of both: thus

thus if I am ſcratched by a pin, though the pin is alſo a ſenſation, yet I do not feel nor attribute pain to the pin, but to the hand, or other part ſcratched. This circumſtance has much embarraſſed both the hyloiſts and materialiſts; both, in contradiction to the evidence of their ſenſes, being obliged to aſſert, that the brain alone is the ſeat of ſenſation, to avoid the conſequence that otherwiſe would inevitably follow from their reſpective ſentiments, that the ſoul or ſentient principle is extended, ſince one may at the ſame time feel in the head and in the toe.

511. Thirdly, theſe appropriate ſenſations are diſtinguiſhed by their *ſituation* with reſpect to each other, ſome being relatively *external*, viſible, and tangible by the hand, or other external parts; others *internal*, as the ſtomach, heart, brain, liver, ſpleen, bowels, and other *viſcera*. The exiſtence of the latter, is not clearly and diſtinctly noticed by the mind to which they are appropriated, for four reaſons; firſt, becauſe their exiſtence is atteſted, neither by the ſight, nor diſtinctly by a double reference by tact, as the external parts are; and, ſecondly, becauſe the ſenſation of each is confounded

and

and blended with thoſe of all the other *viſcera*; which mixed ſenſation, when all are in a ſound ſtate, is called the *ſenſation of health*, the pleaſure of which is clearly perceived during recovery from a ſevere diſorder. Of ſuch mixed ſenſations the arts of perfumery, cookery, painting, dying, and optics, preſent many inſtances. Thirdly, the ſhape, extent, and motion of each, may have originally been perceived diſtinctly, though now obſcurely, from familiarity and attention to livelier ſenſations, their conſciousneſs is ſo far diminiſhed, that it cannot be diſtinctly recollected; for recollection requires diſtinct attention, and attention requires dwelling on the perception for ſome perceptible portion of time; thus what we ſee or hear rapidly cannot be diſtinctly recollected: it is thus that, though the mind does not ceaſe to think during profound ſleep, yet its ideas are ſo feeble, and its conſciouſneſs ſo ſlight, that no trace of them remains on the memory. See 1 Baxter, 331.*

* Several curious inſtances of ſuch evaneſcent conſciouſneſs are produced by profeſſor Dugald Stewart, in his chapter on *Attention*.

Fourthly,

Fourthly, the automatic motions of the internal parts are carried on by Divine agency; their exiſtence is therefore known to the Divine mind, and ſome of them may be obſcurely known to us; for inſtance, the motion of the blood, which is ſuggeſted by that of the heart and pulſatio n The whole organization of the human body, its nerves, muſcles, tendons, fibres, brain, &c. conſiſt of ſenſations, which now indeed, from long habit, are ſo obſcurely perceived, and ſo tranſiently attended to, as not to be diſtinctly noticed, any more than the train of volitions neceſſary to the rapid execution of a piece of muſic, which are nevertheleſs perfectly unnoticed by the performer himſelf, who while playing often holds a converſation on other ſubjects. See poſt. N° 887 and 888. But at our birth, moſt probably, they are all diſtinctly perceived, and from their new interference with each other, moſt probably, the firſt pains and cries of infants proceed. But by cuſtom, the pain gradually leſſens, and at length ceaſes; and thus the perception ceaſes to be diſtinctly attended to; yet their intermediation is ſtill a neceſſary ſtep to

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the diſtinct perceptions preſented to us by our ſenſes, to our ideas, and to our thoughts of every kind; for when they ceaſe to exiſt, or are deranged, either by the manifeſt or hidden laws of our conſtitution, all ſenſual perceptions, and even life itſelf, is extinguiſhed.

512. Many other changes alſo take place in the internal, and even in the external parts of our frame, which by being gradual, eſcape notice; ſuch as our growth and decay, and the rudiments of various diſorders; in conſequence of laws which take place in various circumſtances; on the occurrence of certain emotions, ideas, or ſenſations, whether in the internal or external parts, in conſequence of theſe, the organization may be injured or deſtroyed, as the organs of ſight by exceſſive light, and the whole frame by certain cadaverous ſmells, &c.: but the moſt uſual ſource of injury, and even of the deſtruction of life, from adventitious and extraneous ſenſations, ariſes from the violence of the ſenſations of heat, cold, percuſſion, and obſtruction to neceſſary animal functions.

513. Some may perhaps object, that difference of ſituation is incompatible with an exiſtence

exiſtence purely mental; thus judgments, volitions, or paſſions, have no ſituation: to undeceive them it were perhaps ſufficient that they ſhould reflect on the difference of ſituation which their dreams often preſent to them, or a common mirror, or their ideas of common ſenſible objects; for inſtance, of a houſe, wherein they may contemplate the different ſituation of the walls, windows, floors, ſtairs, rooms, roof, &c.; and yet all theſe exiſt confeſſedly only in the mind, which thus ideally repreſents them in their abſence.

CHAPTER II.

OF THE CAUSE OF OUR SENSATIONS

514. No ſolid or even plauſible reaſon can be aſſigned for deeming our ſenſations to originate from any other cauſe than the known cauſe of our exiſtence, the Supreme Being, and the impreſſions we receive from each other, or other animals, whoſe efficacy is evidently derived from him: as we have no power over our own, ſtill leſs can we be ſuppoſed to have any over beings, with which we are not identified,

identified, but by conceſſion from the common Author of our exiſtence; a power limited, not by our will, or at our diſcretion, but regulated and confined by laws of his appointment.

515. The ſuppoſition, that any other claſs of beings, whether known or unknown, poſſeſs a power of acting on our minds, is not only gratuitouſly aſſumed, where not atteſted by Divine revelation, rationally interpreted, but has ſerved as a foundation for the ſuperſtructure of the groſſeſt and moſt pernicious errors, which unhappily have, for forty centuries at leaſt, overſpread the greater part of the globe, and ſtill ſpread their malignant influence over no inconſiderable portion of it, as polytheiſm, idolatry, magic, demoniſm, and the various cruel and abominable practices that ſprung from them.

SECT. I.

OF MATTER.

516. We are now to treat of the moſt important object of contention that divides modern metaphyſicians: the exiſtence of a ſub-

ſtance called *matter*; which, ſtrange to tell! is deemed impoſſible by one party, on arguments acknowledged, even by the adverſe party, to be unanſwerable;* though it aſſerts at the ſame time, that the denial of its exiſtence is abſurd and fanatical.† And while ſome of its ableſt patrons own the ſuppoſition of its exiſtence to be barely ſuperfluous and unneceſſary ;‡ moreover its admiſſion is well known to have been the ſource of the wildeſt ſyſtems of ſcepticiſm, atheiſm, Epicureaniſm, Spinoſaiſm, &c.; and of the moſt abſurd philoſophical hypotheſis, namely, its co-eternity with the Divinity, its infinite diviſibility, its homogeneity and innate activity, &c.; yet, after having thus perplexed themſelves, and cauſed inextricable confuſion, its defenders gravely tell us, the ſubject is placed beyond the limits of the human underſtanding, (as if they were acquainted with them, and had fixed and defined them,) which is an expreſs avowal, that they know nothing of matter.

517. But, to be more particular, I ſhall, in

* Reid on the Mind, p. 21.

† Stewart on the Mind, p. 6.

‡ Reid on the Mind, 107. Encyclop. Britt. *Metaph.* 544

the

the *firſt place*, ſtate the definition of matter, given by its principal advocates, and examine its truth and conſiſtency.

Secondly, the conceſſions they have been forced to make.

Thirdly, the origin of the prevailing belief of the exiſtence of matter.

Fourthly, the advantages gained by the ſpeculative rejection of matter.

Laſtly, I ſhall anſwer the objections made, or that may be made, to the anti-hyloiſtic ſyſtem.

SECT. II.

DEFINITION OF MATTER.

518. I omit the definitions given by the peripatetics, Carteſians, and Leibnitzians, as they are now generally abandoned.

519. Mr. Locke, in his reply to the biſhop of Worceſter,* defines matter to be a ſolid and extended ſubſtance. This definition involves an impoſſibility; for extenſion, ac-

* See the note to ſec. 56, Book 4, chap. 3, 16th edition, vol. ii. p. 144.

cording to the hyloiſts, conſiſts of parts placed one beyond the other; now I aſk, whether theſe parts are themſelves extended or not? If not, then according to this definition they are not material; if they are extended, then the ſame queſtion recurs without end, and thus nothing is explained; it is juſt as if the Indian mentioned by Mr. Locke to have ſaid, that the world was ſupported by an elephant, and the elephant by a tortoiſe, ſhould have added, that this tortoiſe was ſupported by another tortoiſe, and ſo on; or, as if an anatomiſt ſhould ſay, that a fibre conſiſts of fibres one outſide the other. Accordingly, this definition is exploded by Mr. Locke himſelf;* and yet he gives no better; nay he affirms, that "this primary "and ſuppoſed obvious quality of bodies will "be found, when examined, as incomprehen- "ſible as any thing belonging to our minds, "and a ſolid extended ſubſtance as hard to "be conceived, as a thinking immaterial one." To ſuch extremities the moſt ingenious men reduce themſelves, when they outſtrip the evidence of their ſenſes! and undervalue that of conſciouſneſs. The difference however

* Lib. 2. chap. xiii. ſec. xv. p. 133.

betwixt

betwixt our knowledge of this fictitious extenſion, and the knowledge of our thoughts, is very different; the latter is founded on the evidence of conſciouſneſs, the former on deluſions of imagination and reaſoning acknowledged to be abſurd.

520. Secondly, in this hypotheſis, either there exiſt certain parts which are the primary elements of extenſion, or there are no ſuch parts: if we ſuppoſe ſuch parts, their magnitude muſt be determinate or indeterminate; if determinate, then they are material, though ſingle, and conſequently extenſion does not require parts beyond parts, or elſe they are further diviſible, and conſequently not primary. Indeterminate their magnitude cannot be; for, whatever exiſts is determinate. If there are no ſuch elementary parts, then matter muſt be infinitely diviſible, and if ſo, it conſiſts of parts infinitely ſmall; for diviſion does not create the parts, they muſt exiſt before they can be divided; but theſe infinitely ſmall parts are ſtill material, and yet not extended, being already as much divided as they can be; therefore extenſion is not eſſential to matter.

521. Thirdly, Doctor Prieſtley, the parent

of moſt of our modern philoſphic diſcoveries, though his notion of matter be as abſurd and incomprehenſible as any other, (for who that admits it can advance any thing rational concerning it?) produces a very concluſive argument againſt attributing ſolidity, or impenetrability to it, as properties eſſential to its exiſtence; it runs thus, the power of attraction is neceſſary to ſolidity: for every body, as ſolid and impenetrable, muſt have ſome particular *form* or *ſhape*; but it is no leſs obvious, that no ſuch *figured thing* can exiſt, unleſs the parts of which it conſiſts have a mutual attraction, ſo as to keep cloſe and united to each other: the power of attraction muſt therefore be eſſential to the exiſtence of all matter, if ſolidity be eſſential to it, ſince no ſubſtance can retain any form without it, nor its parts adhere to each other. Now it is generally held, that matter is inert, and deſtitute of all power, unleſs the *vis inertiæ*, if ſuch there be, be deemed a power;* and Sir Iſaac Newton expreſsly denies gravity to be a power inherent and eſſential to matter, and conſequently attraction of coheſion; which is the ſame power acting at a ſmaller

* Which is denied by Dr. Franklin and others. See Segúi Phy. 91.

or

or no diſtance.* (See Newton's letter to Bentley, January 17th, 1692-3.)

522. Hence Mr. Locke, though he defines matter to be a ſolid and extended ſubſtance, yet he aſſerts,† that, if God has not conjoined its parts by connection inconceivable to us, we muſt deny the conſiſtency and even the being of matter; ſince every particle of it having ſome bulk, has its parts connected by ways inconceivable to us.

523. We hereby ſee the neceſſity of admitting the only definition of extenſion, of which our ſenſes afford us any knowledge, namely, that it is nothing more than a continuation of tactile perceptions, more or leſs coherent, as already ſaid, N° 487; and this coherency is nothing but the Divine agency diverſified in different bodies and in different circumſtances. This agency we may call *attraction*, of which no better account can be given.

524. Doctor Reid alſo agrees with Locke, in ſtating that matter is ſomething extended and ſolid, which may be meaſured and

* See Hutt. Mathem. Dict. *Attraction*, p. 171.

† Vol. ii. p. 148.

 weighed,

weighed, and is the immediate object of the touch and ſight.* But,

525. If matter had been the immediate object of either ſight or touch, it ſurely might have been better deſcribed than by calling it *ſomething*; and particularly if it were the *immediate* object of both thoſe ſenſes. The *immediate* objects of our ſenſes are thoſe things which we immediately know by their means, and this knowledge is univerſally called a ſenſation: the immediate objects of ſight are light and colours; thoſe of touch, are hardneſs, ſoftneſs, heat, cold, &c. Theſe ſenſations, the Doctor owns, † have not the leaſt ſimilitude to external qualities; theſe cannot therefore be ſaid to be immediately perceived by our ſenſes: hence he further owns, that our ſenſes barely *ſuggeſt* them and their belief, as if it were by a kind of natural magic.‡ Nay, he ſays, that their exiſtence cannot be collected from our ſenſations, even by reaſoning;§ how then can they be ſaid to be immediately perceived by them? He probably meant no more

* 1 Intellect. Powers, p. 265.
† On the Mind, p. 107. 108. & paſſim.
‡ Ibid. p. 113. § Ibid. 115.

than

than that they are immediately ſuggeſted by them, and, as he thinks, by the conſtitution of our nature: yet, the conſtitution of our nature cannot be ſuch as to ſuggeſt a falſehood, an abſurdity, and much leſs an impoſſibility; though our ignorance, precipitate reaſoning, prejudices, and language founded on prejudices, may.

526. *Menſurability* too evidently depends on extenſion, not to ſhare its fate; and of this enough has been ſaid, N° 519.

527. *Ponderability*, in the ſame manner, depends on the greater or leſſer number of tangible ſenſations compriſed in a given ſpace, being nothing more than their tendency to the earth, N° 502. This is immediately perceived by the touch, and only ſuggeſted by the ſight, from a long and early aſſociation grounded on experience, N° 502.

528. In the hyloiſtic hypotheſis, man conſiſts of an immaterial or ſpiritual ſoul, contained in a material organiſed body, and each of theſe is ſaid to exerciſe an influence on the other. Now a ſpiritual being occupies no ſpace, and therefore cannot be ſaid to be any where in the hyloiſtic ſenſe; and as to the influence which theſe two ſubſtances are ſaid to

exerciſe on each other, it is perfectly inconceivable, as one is ſuppoſed to be extended and the other not; it is therefore ſaid to be grounded on the eſtabliſhed laws of their union; and yet theſe laws are acknowledged to be unneceſſary, ſince it is ſaid, that "no man "can ſhew, by any good argument, that all "our ſenſations may not have been as they are, "though no body, or quality of body, had ever "exiſted."* The admiſſion of matter is therefore contrary to the firſt of Sir Iſaac Newton's rules of philoſophizing, that *we ſhould admit no more cauſes of things than are ſufficient to explain appearances.*

529. Extenſion and ſolidity being then perceived immediately by ſenſe, and conſequently mere ſenſations, cannot exiſt in an inſentient ſubject, ſuch as matter is ſaid to be; and conſequently matter, which is ſaid to be both extended and ſolid, is ſomething as impoſſible and repugnant as a ſquare circle, or any other chimera. And hence Dr. Price, though a zealous maintainer of hyloiſm, was at laſt induced to own, in his controverſy with Dr. Prieſtley, † that it would not perhaps be impoſſible to convince him, that there was no

* Reid on the Mind, 107. † P. 85.

ſuch

ſuch thing as matter. Thoſe eminent prelates, Sherlocke and Smalridge, embraced the antihyloiſtic ſyſtem, as the late Mr. Day, and many more of my acquaintance have done;* and Dr. Prieſtley tells us he knew ſome more.† And ſee poſt. N° 612. Chambers ſays, article Exiſtence, that many in his time, that is, ann. 1730, or 1740, thought the Berkeleyan ſyſtem demonſtrated.

SECT. III.

CONCESSIONS OF THE ADVERSARIES OF ANTIHYLOISM.

530. Firſt, Mr. Locke divides all our ſenſations into primary and ſecondary: the primary he thinks reſemblances of external objects.‡ Such are extenſion, ſolidity, figure, and motion. The ſecondary are colours, ſounds, odours, and taſtes; and theſe he acknowledges have no reſemblance to any thing external, but are mere powers in thoſe bodies we denominate from them *red*, *ſweet*, &c. to produce thoſe ſenſations, by the operation of inſenſible particles, whoſe bulk, figure, or

* Encylop. Britt. Metaph. p. 543.

† Examination of Drs. Reid, Beattie, and Oſwald, p. 151.

‡ Book 2. chap. 8. ſec. 15.

motion,

motion, we cannot diſcover by any of our ſenſes:* theſe powers are, therefore, perfectly unknown to us, at leaſt through our ſenſes. And, on the other hand, Dr. Reid juſtly remarked,† that "Mr. Locke had not "given due attention to the nature of ſen- "ſation in general, when he affirmed, that the "ideas of primary qualities, that is, the ſen- "ſations excited by them, are reſemblances of "thoſe qualities; for that nothing like a ſenſa- "tion can be in an inſenſient being is ſelf-evi- "dent, (juſt as Berkeley affirms.)

531. Secondly, Dr. Reid acknowledges, that by ideas of ſenſe, Berkeley means ſenſations, as we have them by means of our ſenſes;‡ and that this author having laid down, that it muſt be evident to any one that takes a ſurvey of the objects of human knowledge, that they are either ideas actually impreſſed on the ſenſes, or elſe ſuch as are perceived by attending to the paſſions and operations of the mind; or, laſtly, ideas formed by the help of memory and imagination, either compounding, dividing, or barely repreſenting, thoſe

* Sec. 13, 17, 18.

† 1 Reid, p. 365. ‡ 1 Reid, Intell. Powers, 267.

originally

originally perceived by the aforeſaid ways.* Dr. Reid owns he once believed this doctrine ſo firmly as to embrace the whole of Berkeley's ſyſtem in conſequence of it, and that ſuppoſing this principle to be true, this ſyſtem is impregnable.† That nothing can reſemble a ſenſation but a "ſimilar ſenſation in the "ſame or ſome other mind; that to think any "quality, in a thing that is inanimate, can "reſemble a ſenſation, is a great abſurdity: "in all theſe points, the Dr. ſays, he perfectly "agrees with Berkeley.‡ Again, that the "evidence of an all-governing mind, ſo far "from being weakened, ſeems to appear in a "more ſtriking light, upon his hypotheſis, "than on the common one; the powers "which inanimate matter is ſuppoſed to poſ-"ſeſs, having always been the ſtrong hold of "atheiſts, this fortreſs is moſt effectually "overturned, if there be no ſuch thing as "matter in the univerſe."§

532. "If it be true, that by our ſenſes we "have the knowledge of our ſenſations *only*, "then Berkeley's ſyſtem muſt be admitted.

* Principles of Human Knowledge, ſec. 1.

† 1 Reid, 243, 244. ‡ 1 Reid, 268.

"But if there are objects of the ſenſes which "are not ſenſations, his arguments do not "affect them: they may be things which do "not exiſt in the mind, as all ſenſations do; "they may be things of which by our ſenſes "we have notions, though no ideas, juſt as by "conſciouſneſs and reflexion, we have notions "of ſpirits and their operations, without ideas "or ſenſations."* (No, we can have no *notion* of matter by the ſenſes; if we could, we might explain what we mean by it, as we can explain what we mean by notions gained by conſciouſneſs or reflection; but of matter, as generally underſtood, we can give no intelligible account, as ſhewn N° 519—529.)

He alſo allows, that all our ſenſations might be as they are, though nobody had ever exiſted;† and that the exiſtence of bodies cannot be collected by reaſoning from our ſenſations, or from any principle of human nature.‡

* Reid, 269. † Reid on the Mind, 107. ‡ Ibid. 115.

533. By *matter* I underſtand an inſenſient being, ſuppoſed to be the cauſe or occaſion of our ſenſations. Thus defined, it includes no repugnancy, but its exiſtence is ſuperfluous and at leaſt highly improbable, as will be ſeen, N° 543. It can not be called a ſubſtance or *ſubſtratum*, as it has no known modification whatſoever.

534. *Belief* or diſbelief are judgments, affirmative or negative, founded on ſome ground either real or apparent; when their grounds are ſolid and *real*, though differing from thoſe ſuggeſted by appearances, they are *ſpeculatively* true, though apparently falſe. When the contrary, they are *mere* appearances, whether to the ſenſes or to the imagination, and nothing more.

535. Thus when an oar obliquely placed, partly in water and partly in air, is judged to be ſtraight, this judgment is ſpeculatively and in reality true, though apparently to the ſight it

it is falſe; and, on the contrary, when it is judged to be crooked, this judgment is apparently true, though ſpeculatively and in reality falſe. So alſo, when ſpace is judged to be extended beyond the limits of the univerſe, and even infinitely, as many have judged it to be, this judgment, apparently to the imagination, is true, though in reality falſe. By a ſimilar deluſion Deſcartes and his followers deemed ſolid extenſion boundleſs.

536. Now the belief of the exiſtence of matter originated, and ſtill reſts, on ſimilar deluſions, and principally on the following:

537. Firſt, the perſuaſion that we perceive diſtant tangible objects immediately by ſight; whereas we only inſtantaneouſly imagine and infer their exiſtence, from their long-experienced connexion with viſual objects, and certain motions of our eyes. This is owned by the moſt intelligent hyloiſts,* ſee N° 405, &c. Thus, what we ſee, is barely a ſign of the tangible ſenſation we ſhould have, or ſome other mind has, if in contact with the object. In fact, we never ſee and feel the ſame thing,

* Stewart on the Mind, 148, 149.

though

though we may things to which a common name is given; thus I may be ſaid to see and feel the ſame billiard ball, though in fact I ſee only its colour, and at moſt half its figure; but I do not ſee its ſmoothneſs or hardneſs, no more than I can feel its colour; the former are ſuggeſted to me by the ſight, in conſequence of the experienced aſſociation of the colour with thoſe tangible ſenſations, which we know we actually have not; now, of ſuch ſenſations, thus ſuggeſted to us, and which we are certain we ſhall experience after traverſing a certain diſtance, we imagine the cauſes to exiſt at that diſtance, and conſequently that they are external to our minds, through our natural ignorance and habitual inattention to the Supreme Being, the only poſſible cauſe of our ſenſations. Theſe ſuppoſititious imaginary cauſes are by the hyloiſts called *matter*.

538. So alſo a blind man, finding that he can ſucceſſively feel the aggregate of the reſiſting ſenſations that compoſe his body, naturally imagines theſe parts to be external to, and diſtant from, his mind or principle of thought, which he cannot feel.

539. The ſame miſtake, though in a

leſſer degree, is daily made with reſpect to ſounds; for nothing is commoner than to ſay one hears trumpets, or the firing of guns, or the approach of carriages, though nothing can really be heard but the different modifications of ſound connected and long aſſociated with the above-mentioned circumſtances of thoſe bodies.

540. So alſo, when the known figure, colour, and magnitude, of an apple are ſeen, they immediately ſuggeſt the taſte and ſmell; and on this aggregate of ſenſations, a name is beſtowed, which is that of an *apple*.

541. The ſecond cauſe of this perſuaſion was ſuggeſted by the ſtructure of language: this requires, moſt commonly at leaſt,* adjectives and ſubſtantives. Now the ſame adjective is applicable to a variety of different ſubſtantives; thus we ſay a good man, a good horſe, a good houſe, &c. Frequently indeed the ſubſtantive with which the adjective is ſuppoſed conjoined, is not expreſſed; thus Hudibras ſays, "*better* is the only enemy to

* I ſay commonly, for in Hebrew, abſtract words are ſometimes uſed for adjectives; ſo Paganinus tranſlates the ſecond verſe of Geneſis, *terra erat ſolitudo & inanitas.*

good;"

good;" but, as an adjective is imperfectly intelligible without reference to ſome ſubſtantive, the general term *thing* was invented, which denotes any ſubſtantive: then all ſenſations being expreſſed by adjectives, on account of their various applicability, as *red, fragrant, ſweet, loud, hot, cold, hard, ſoft, extended,* &c. the mechaniſm of language neceſſarily ſuppoſes them to have ſome ſubſtantive to which their aggregate is applicable. This ſubſtantive was called a *thing*, or ſubſtance, though perfectly unknown, being unperceived by any of the ſenſes, until a particular name was deviſed, which name was ſuppoſed to denote alſo that unknown thing, and to involve it in its ſignification: thus an apple was at firſt called a red, fragrant, juicy *thing*, before it was named an *apple*, which more expreſsly denoted the peculiarities of its taſte, ſmell, colour, ſhape, hardneſs, &c. Thus theſe ſenſations were deemed to be modifications of this fictitious thing, which was called their *ſubſtratum*, and the ſuppoſed *ſubſtratum* of all ſenſational aggregates was by philoſophers called *matter*.

542. Thirdly, men were led to think, that

there exiſted ſome ſubſtance foreign and extrinſic to them, by reaſon of the continued reappearance of many objects totally independent of them; not reflecting, that all that was perceivable in theſe objects were mere ſenſations, as colour, taſte, ſmell, &c. which could not exiſt but in ſome mind, though not perceived by their own though they reappeared to them by virtue of the laws fixed by the Author of nature. Hence that profound philoſopher Mr. Turgot ſays, that exiſtence, relatively to us, is the permanence of certain collections of ſenſations, which in ſimilar circumſtances conſtantly reappear the ſame, with alterations ſubjected to certain laws."*

543. Thus the exiſtence of matter, though in reality an abſurd fiction, and therefore to be rejected in ſpeculations where the mere truth of things is to be examined; yet, being ſtrongly and habitually ſuggeſted by the imagination and the mechaniſm of language, muſt, in all other caſes wherein we ſpeak of and are guided by mere appearances, be admitted as true; but that we are forced to en-

* Vie de Turgot, p. 17.

tertain

tertain that belief, by the conſtitution of our nature, I cannot admit;* for we cannot be ſo framed as to be forced to believe a falſehood after an unprejudiced and thorough examination of any ſubject.

544. Of ſuch belief, founded on the deluſions of imagination, to which nevertheleſs language frequently conforms, we have many inſtances: thus we ſay the ſun riſes, moves round the earth, and ſets, though it is known that this judgment is *ſpeculatively falſe*; thus the exiſtence of our antipodes was long treated as an abſurd fiction, and is ſtill ſo by the vulgar, becauſe they can be imagined no otherwiſe than with their heads downwards. So even ſuch men as Clarke, Locke, and Newton, thought there exiſted a boundleſs ſpace beyond the limits of the univerſe. So, while preſent at a well-acted tragedy, we for a time imagine the actors to be the perſons they repreſent, though we know them not to be ſo: in the ſame manner, in reading an affecting novel or romance, we are deluded into the

* Nor is is admitted by one of the moſt intelligent of Dr. Reid's followers, Encyclop. Britt. *Metaph.* p. 488. ſecond column.

belief of the reality of the perſonages they preſent, and are affected nearly as if they were real, though we know them to be merely fictitious. With how much more efficacy muſt ſuch deluſions operate, which are co-eval with our birth, grow with our growth, are fortified by the prejudices of all around us, even by the language we ſpeak, and are ſo difficulty detected ?*

SECT. V.

ADVANTAGES GAINED BY THE SPECULATIVE REJECTION OF MATTER.

545. Firſt, by proving matter to be impoſſible, we extirpate the root of atheiſm, Manicheiſm, Sabeiſm, and modern materialiſm, errors which it is impoſſible to combat with equal effect on any other grounds; for of courſe it cannot be eternal, as atheiſts pretend; it cannot be derived from an evil principle, or be the ſource of evil; it can have no properties, either known or unknown, and therefore can never, on any ſuppoſition, either

* See Stewart's Outlines, ſec. 302, 303.

feel

feel or think; nor can the ſun, moon, or ſtars, be objects of worſhip, as they have no exiſtence out of the minds that perceive them.

546. Secondly, we diſencumber philoſophy of various paradoxical aſſertions, whoſe admitted incomprehenſibility, though ſuppoſed to reſt on geometrical demonſtrations, is diſgraceful to human reaſon, and has given riſe to ſcepticiſm, and furniſhed fanatics and myſtery-mongers with a plauſible pretext to inſult and humble it; ſuch as the *infinite diviſibility of* matter: the exiſtence of *extra-mundane ſpace*, to which many have attributed the incommunicable attributes of the Deity, and others have with no leſs abſurdity conſidered as a divine attribute, will be ſeen to have no exiſtence but in the mind, ſpace being nothing more than the diſtance diſcerned betwixt tangible ſenſations; and thus the contradiction ariſing from the ſuppoſition of the divine *immenſity* filling all, even extra-mundane ſpace, and yet to be unextended, is at once removed.

The nature of *forces*, and the *communication of motion*, are no longer unintelligible, if they are nothing more than the reſults of the ſettled

laws of the Divine agency: the preſence of *powers* acknowledged to be inadequate to the production of the effects attributed to them, ſuch as that of ſubtile particles, to produce ſenſations, will no longer be deemed neceſſary: the change which, according to St. Paul, is to take place in our bodies at the reſurrection, is eaſily underſtood, as it denotes no more than an alteration in the laws by which the ſyſtem of perceptions, which conſtitute our bodies, is at preſent governed.

547. Notwithſtanding this ſpeculative rejection, this word ſhould be uſed, not only in popular language, wherein it is often taken figuratively, but alſo in that of natural philoſophy, wherein it is employed as an abridged expreſſion of *tangible ſenſations*.

SECT. VI.

OBJECTIONS TO THE ANTIHYLOISTIC SYSTEM ANSWERED.

I ſhall firſt mention thoſe ſtated and anſwered by Berkeley himſelf; but ſubſtituting the word *ſenſation* for *idea*, which the Doctor had unfortunately employed where he meant ſenſations,

ſations, as Dr. Reid candidly allows, Vol. I. p. 267.

Firſt Dialogue.

548. Firſt to the charge of ſcepticiſm, with which his theory had been unjuſtly branded,* he anſwers, that he who denies any thing, can no more be ſaid to doubt, than he who affirms it, with the ſame degree of aſſurance.

549.—*Second Objection.* Senſible things being conſidered as ſo many modes or qualities, ſuch as colours, taſtes, ſmells, &c. cannot be conceived without ſome *ſubſtratum* of which they are the modes or qualities. This ſubſtratum is not indeed itſelf perceived by any ſenſe, but we have a relative notion of it.

550.—*Anſwer.* If ſo, then it is ſpread under, or is the ſubſtratum of extenſion, as this, being perceived by ſenſe, is a ſenſible quality. Yet, can any thing be ſpread under and ſupport extenſion, which is not itſelf extended? It muſt therefore have an extenſion different

* I can hardly ſuppoſe profeſſor Stewart to have called Berkeley's concluſions ſceptical, and ranked them with thoſe of Hume, otherwiſe than through inadvertence. See his Life of Dr. Reid, p. xc. That Hume himſelf ſhould call them ſo, is not ſurpriſing.

from that under which it is ſpread, and this muſt be ſupported by another extenſion, and ſo on infinitely. (It was however on this miſtaken opinion that language was founded, ſee N° 541.) To form a relative notion of any thing, its exiſtence muſt firſt be eſtabliſhed; a mere nonentity can relate to nothing. And to ſay we cannot conceive qualities or accidents to exiſt, without conceiving a material ſupport to them, is to ſay we cannot conceive them, without conceiving ſomething which we cannot conceive.

551.—*Objection.* Do we not perceive the moon and ſtars at a great diſtance? Therefore they do not exiſt barely in the mind that perceives them.

552.—*Anſwer.* Do you not in a dream perceive many objects having the ſame appearance of diſtance? and yet no one concludes the apparitions of a dream to be without the mind.

553.—*Objection.* Does not ſight ſuggeſt ſomewhat of *outneſs*, or diſtance?

554.—*Anſwer.* In approaching a diſtant object, the viſible ſize and figure change perpetually; the ſight therefore does not of itſelf immediately

mediately inform you that the viſible object you immediately perceive exiſts at a diſtance, there being a continued ſeries of viſible objects during your approach; but from experience you collect what other ſenſations you will, according to the laws of nature, be affected with, after a certain ſucceſſion of time and motion.

555.—*Objection.* But may not ſome things be perceived by ſenſe, which are not immediately perceived?

556.—*Anſwer.* No, not properly ſpeaking; when I look at a picture, for inſtance, of Julius Cæſar, I may be ſaid in a manner to perceive him, (though not immediately) by the ſenſe of ſeeing, but immediately I ſee no more than ſome colours, with a certain ſymmetry and arrangement of the whole: a perſon who had never heard of Julius Cæſar, would ſee as much and nothing more; but my thoughts, from memory of a deſcription of him, are directed to that emperor. We may be ſaid to perceive ſenſible objects in one ſenſe of the word, when, from a frequently obſerved connexion, the immediate objects of one ſenſe ſuggeſt to the mind others, perhaps, belonging to another ſenſe; for inſtance, when I hear

I hear a coach drive along the ſtreets, the ſound alone is immediately perceived, but by the experience I have had, that ſuch a ſound is connected with a coach, I am ſaid to hear the coach. So, if I ſee a red-hot iron, the ſolidity and heat are not the immediate objects of ſight, but are ſuggeſted to the imagination by the colour and figure which are properly perceived by that ſenſe. But the thing called *matter* having never been known experimentally, can never be ſuggeſted, either by memory, or reaſon, or reflexion; it cannot be the archetype of any ſenſation, for nothing can reſemble a ſenſation, but another ſenſation or idea.

557.—*Objection.* May not matter be the *cauſe* of ſenſations, concurring in their production by its motion; or at leaſt their occaſion?

558.—*Anſwer.* No, for *matter*, in the common ſignification of the word, denotes an inert, unthinking, ſolid, moveable, extended ſubſtance; now how can an inactive ſubſtance be a cauſe? how can an unthinking ſubſtance be a cauſe of thought? It has already been proved, that a ſolid extended ſubſtance was impoſſible.

impoſſible. Motion is a ſenſible thing, and therefore paſſive; when I ſtir my finger, the finger is paſſive, but the will that produced that motion is active. The exiſtence of a thing, whoſe connexion with another thing is not neceſſary, muſt firſt be proved before its cauſation can be affirmed. And certainly the hyloiſts can never produce any proof of the exiſtence of matter independent of its connexion with ſenſations; which connexion they allow to be arbitrary.* Ante, N° 532.

559. Nor can it be the unknown *occaſion* of our ſenſations; for, even granting its exiſtence to be poſſible, yet to enable it to be an occaſion, it ſhould be preſent to the mind, which is not even pretended: the regular production of our ſenſations, that is, the order and regularity obſerved in the courſe of nature, is ſufficiently accounted for, by the wiſdom and power of God, to which at laſt we muſt have recourſe; ſuch occaſions reſulting from an unintelligible ſubſtance, are therefore uſeleſs, and their ſuppoſition unphiloſophical.

560.—*Objection.* Not being able to conceive a thing, is no argument againſt its exiſt-

* Reid on the Mind, 107, 115. Stewart on the Mind, 92.

ence; therefore, though we cannot conceive what matter is, we are not juſtified in denying its exiſtenee.

561.—*Anſwer.* That from a cauſe, operation, ſign, effect, or other circumſtance, there may reaſonably be inferred the exiſtence of a thing not immediately perceived, and that it were abſurd to argue againſt the exiſtence of that thing, from having no direct or poſitive notion of it, I freely own; but, where there is nothing of all this, where neither reaſon nor revelation induce us to believe the exiſtence of a thing, nor the moſt inadequate or faint idea pretended to, the inference muſt be that nothing at all is meant.

562.—*Objection.* Still it would ſeem the *reality of things* cannot be maintained, without ſuppoſing the exiſtence of matter.

563.—*Anſwer.* Let us fix on ſome particular thing, my *glove* for inſtance; is it not ſufficient evidence to me of its exiſtence, that I ſee it, and feel it, and wear it? Can I be more aſſured of its reality, by ſuppoſing that ſome unknown thing, which I neither did nor can ſee, exiſts in an unknown manner, in an unknown place, or in no place at all? How

can

can the ſuppoſed reality of that which is intangible, be a proof that any thing tangible exiſts? or of that which is inviſible, that any thing viſible, or in general of any thing that is imperceptible, that a perceptible thing exiſts? Matter has been proved to be impoſſible in every known ſenſe of the word; and to prove the impoſſibility of any thing, nothing more can be required: it cannot be expected that a repugnancy ſhould be ſhewn betwixt ideas or notions, where there are no ideas or notions at all.

Third Dialogue.

564. — *Objection.* From all that has been ſaid, it muſt be concluded that we know nothing at all; our faculties are too narrow and too few. You may know indeed that fire appears hot, and water fluid, but this is no more than knowing what ſenſations are produced in your mind, upon the application of fire or water to your organs of ſenſe; but their internal conſtitution and true nature is unknown: in pretending that you know the true nature of things, by the appearances in your own mind, you act as wiſely as he, that ſhould conclude that two men were of different

knowledge of all things; but as to matter, I neither can perceive it directly, as it involves a contradiction, nor apprehend it by ſimilitude to ſomething elſe, nor yet collect it by reaſoning; I do not deny its exiſtence becauſe I have no notion of it, for many things exiſt of which I have no notion, but then theſe things muſt be poſſible, that is, nothing inconſiſtent muſt be included in their definition; and though we believe things to exiſt, which we do not perceive, yet we may not believe that any particular thing exiſts, without ſome reaſon for ſuch belief; I know what I mean, when I affirm there is a ſpiritual ſubſtance, or ſupport of ſenſation or ideas, that is, a ſpirit that knows and perceives them; but I do not know what is meant, when it is ſaid, that an unperceiving ſubſtance hath inherent in it either ideas or the archetypes of ideas. It is granted, we have neither an immediate evidence nor a demonſtrative knowledge of the exiſtence of other finite ſpirits; but it will not thence follow, that ſuch ſpirits are on a foot with material ſubſtances: if to ſuppoſe the one be inconſiſtent, and it be not inconſiſtent to ſuppoſe the other; if the one can be inferred by no argument, and there is a probability for the other;

if

re ſee ſigns and effects indicating diſtinct
te agents like ourſelves, and ſee no ſign or
ıptom whatever that leads to a rational be-
of matter; I ſay, laſtly, that I have a no-
ı of ſpirit, though I have not, ſtrictly
ıking, an idea of it: I do not perceive it
n idea, or by means of an idea, but know
y reflection.

69b.—*Objection.* Notwithſtanding all you
e ſaid, to me it ſeems, that according to
r own way of thinking, and in conſe-
nce of your own principles, it ſhould fol-
, that you are only a ſyſtem of floating
ıs, without any ſubſtance to ſupport them.
rds are not to be uſed without a meaning;
as there is no more meaning in ſpiritual
ſtance, than in a material ſubſtance, the
is to be exploded as well as any other.

69c.—*Anſwer.* How often muſt I repeat,
t I know or am conſcious of my own be-
; and that I myſelf am not my ideas, but
ıewhat elſe; a thinking active principle,
t perceives, knows, wills, and operates
ut ideas. I know that I, one and the ſame
, perceive both colours and ſounds: that a
our cannot perceive a ſound, nor a ſound a

colour: that I am therefore one individual principle, diſtinct from colour and ſound; and, for the ſame reaſon, from all other ſenſible things and inert ideas. But I am not in like manner conſcious either of the exiſtence or eſſence of matter; on the contrary, I know that nothing inconſiſtent can exiſt, and that the exiſtence of matter implies an inconſiſtency. Further, I know what I mean, when I affirm, that there is a ſpiritual ſubſtance or ſupport of ideas; that is, that a ſpirit knows and perceives ideas; but I do not know what is meant, when it is ſaid, that an unperceiving ſubſtance hath inherent in it, and ſupports, either ideas or the archetypes of ideas. There is therefore, upon the whole, no parity of caſe between ſpirit and matter.

570.—*Objection.* Aſk the firſt man you meet, and he will tell you to be perceived is one thing, and to exiſt another thing, and laugh at you if you tell him, a tree, for inſtance, exiſts only in his mind.

571.—*Anſwer.* I am ſatisfied; aſk your gardener why he thinks yonder cherry-tree exiſts in the garden? He ſhall tell you, becauſe he ſees and feels it. Aſk him why he thinks

thinks an orange tree not be in the garden, he will tell you, becauſe he does not perceive it. He certainly believes it to exiſt, even when unperceived, but the reaſon is, becauſe he thinks its colour, hardneſs, and other ſenſible qualities, exiſt though unperceived, juſt as he believes the ſun to riſe and ſet, and would laugh at you, if you told him the earth turned round the ſun: in theſe caſes he ſpeaks from ignorance and prejudice, as every one muſt allow.

572.—*Objection.* But may we not ſay, the exiſtence of a ſenſible thing conſiſts in being perceivable but not in being actually perceived?

573.—*Anſwer.* What is perceivable but a ſenſation or an idea? And can either exiſt without being actually perceived by ſome mind?

574.—*Objection.* According to your notion, what difference is there betwixt real things and the chimeras formed by the imagination, or the viſions of a dream?

575.—*Anſwer.* Ideas formed by the imagintion are faint, indiſtinct, and dependant on the will; whereas the perceptions of ſenſe

are vivid and clear, and have not a like dependance on the will, and are perfectly coherent and regular: the viſions of a dream are dim, irregular, confuſed, and unconnected with the preceding and ſubſequent tranſactions of our lives. In ſhort, by whatever method you diſtinguiſh, on your ſcheme, realities from chimeras, the ſame will hold upon mine, ſince theſe differences are perceivable; and I do not deprive you of any thing you perceive.

576.—*Objection.* By making God the author of all the motions in nature, you make him the author of thoſe that are ſinful.

577.—*Anſwer.* The moral turpitude of ſin does not conſiſt in the phyſical action or motion, but in the deviation of the will from the laws of reaſon and religion; thus killing in one's own defence, is not thought ſinful, though the outward act be the very ſame as that in the caſe of murder. Beſides, God is not the only agent who produces motions in bodies; the human mind hath certain limited powers of producing it under the direction of its own will, ultimately derived from God.

578.—*Objection.* But is not the *momentum* of

of bodies in motion in a compound ratio of the velocity and quantity of matter contained in them?

579.—*Anſwer.* True, taking matter to denote the extenſion and ſolidity perceived by the ſenſes; and *gravity* is proportional to the quantity of matter, ſo underſtood, but not to that of a ſuppoſed *ſubſtratum.*

580.—*Objection.* Can it be ſuppoſed that all the world are deceived in believing the exiſtence of matter?

581.—*Anſwer.* It may: have not mankind been deceived in believing, that colours and other ſecondary qualities, as they are called, are external to the mind? That the earth ſtands ſtill, and that the ſun and ſtars move round it, &c.?

582.—*Objection.* The motion of the earth is not perceived, and yet it exiſts.

583.—*Anſwer.* It is not perceived by us, but it is by other minds, and would by us, if we were placed at a certain diſtance from it; that is, if we had experienced a certain ſeries of ſenſations; for motion exiſts only in the mind.

584.—*Objection.* Since, according to you,

men judge of the reality of things by their ſenſes, how can a man be miſtaken in thinking the moon a plain, lucid ſurface, about a foot in diameter? Or a ſquare tower, ſeen at a diſtance, round? Or an oar with one end in the water crooked?

585.—*Anſwer.* He is miſtaken, not with regard to what he actually perceives, but in the inference he makes from his preſent perceptions; thus, in the caſe of the oar, what he immediately perceives by ſight is certainly crooked, but if he thence conclude, that upon taking the oar out of the water, he ſhall perceive the ſame crookedneſs, or that it would affect his touch as crooked things are wont to do, in that he is miſtaken; in like manner, if he ſhall conclude, from what he perceives in one ſtation, that, in caſe he advances towards the moon or tower, he ſhould ſtill have the ſame perceptions, he is miſtaken; but his miſtake lies not in what he perceives immediately and at preſent, (it being a manifeſt contradiction he ſhould err, in reſpect to that) but in the wrong judgment he makes concerning the perceptions he apprehends to be connected with

with thoſe he immediately perceives or concerning thoſe which, from what he perceives at preſent, he imagines he would have in other circumſtances.

586.—*Objection.* If, whatever perceptions we receive from without are in the mind that impreſſes them, the ſenſations of pain and uneaſineſs are in God, or, in other words, God ſuffers pain, which is abſurd.

587.—*Anſwer.* That God knows what pain is, even every ſort of painful ſenſation, and what it is for creatures to ſuffer pain, is certain; but to ſuppoſe he can ſuffer pain, is impoſſible. (See N° 395.)

588. We are chained to a body; that is to ſay, our perceptions are connected with corporeal motions. By the law of our nature, we are affected by every alteration in the nervous parts of our ſenſible body; which ſenſible body, rightly conſidered, is nothing but a complexion of ſuch qualities or perceptions as have no exiſtence diſtinct from being perceived by a mind: ſo that this connexion of ſenſations with corporeal motions, means no more than a correſpondence in the order of nature betwixt two ſets of things immediately

perceivable. But God is a pure ſpirit, diſengaged from all ſuch natural ties.

589.—*Objection.* If the true nature of a thing be diſcovered by the ſenſes, why is not the ſame figure, and other ſenſible qualities, perceived all manner of ways? And why ſhould we uſe a microſcope, the better to diſcover the true nature of a body, if it were diſcoverable by the naked eye?

590.—*Anſwer.* The reaſon is, that, to avoid multiplicity of names, men combine together, and denote by one name, ſenſations received by different ſenſes, or by the ſame ſenſe at different times, or in different circumſtances, when obſerved to have ſome connexion in nature, either with reſpect to coexiſtence, or ſucceſſion. Thus a father and all his children have the ſame ſurname; thus the colour, ſmell, taſte, and tangible ſenſations are referred to one name: for inſtance, a *roſe*, though perceived by different ſenſes, and if any of theſe ſenſations be miſſing, we alter the name; and hence when I examine, by my other ſenſes, the coloured tangible object which I had perceived, or was ſuggeſted by the ſight, it is not to perceive better what I had

had perceived by ſight, the object of one ſenſe not being perceived by another ſenſe; but my aim is to know what ſenſations are connected together; for the more a man knows of the connexion of theſe, (as by chymical analyſis, &c.) the more he may be ſaid to know of the nature ofthings; ſo when I look through a microſcope, it is not to perceive more clearly what I already perceive by my naked eyes, but to find what different perceptions I may receive through that inſtrument, for the ſenſes do not in all circumſtances preſent the ſame ſenſation. See N° 450.

591.—*Objection.* Is it not your opinion, that by our ſenſes we perceive only the ſenſations in our own minds? does it not therefore follow that no two men can ſee the *ſame* thing?

592.—*Anſwer.* No, if words be taken in the uſual ſenſe; for men generally call that the *ſame*, when no diſtinction or variety is perceived; and even when ſome variety is perceived, the word *ſame* is often uſed by ſome, and not uſed by others; thus, ſuppoſe a houſe, whoſe walls and outward ſhell remaining unaltered, the chambers are all pulled down, and new one's built in their place, ſome would call

call this the *ſame*, and others *not the ſame* houſe: but is not this a mere diſpute of words? ſome attending only to the ſimilar part of the object, and ſome only to the diſſimilar, for all would agree in their thoughts of the houſe itſelf.

593. The objection here made applies equally to the hyloiſtic ſcheme, for even the hyloiſts muſt allow, that the *colour* ſeen by one perſon, is not, in the ſtrict ſenſe, that ſeen by the other, each perceiving only *his own* ſenſation.

594.—*Objection.* How can extended things, ſuch as houſes, trees, &c. be contained in an unextended ſubſtance, as the mind is?

595.—*Anſwer.* They cannot be ſaid to be contained in it, in the groſs literal ſenſe, as bodies are ſaid to exiſt in a place; all that is meant is, that they are perceived. In the literal ſenſe, extended things are ſaid to be contained within other things, when their parts are perceived to be within the parts of the other things; but the parts of trees, &c. are not ſo perceived within the parts of the mind, as the mind has no parts.—This objection equally affects the hyloiſts, for they alſo muſt

muſt allow, that the *ideas* of extended things exiſt in an unextended mind.

596.—*Objection.* You will not deny, that trees may be found in a deſert, where they were never perceived by man.

597.—*Anſwer.* True, but they were perceived by other minds, at leaſt by the Divine, otherwiſe they could not be ſaid to exiſt; they could have neither colour, taſte, ſmell, extenſion, or ſolidity, ſince theſe have been proved to be mere perceptions.

598.—*Objection.* After all, our diſpute is rather about words than things; we agree in the thing, but differ in the name: that we receive ſenſations from without is evident, and it is no leſs evident, that there muſt be powers without the mind, adequate to their production; and as theſe powers cannot exiſt by themſelves, ſome ſubject of them muſt neceſſarily be admitted: this I call *matter* and you call *ſpirit*; this is all the difference; this being is not extended, but it hath the power of exciting in you the perception of extenſion; it is alſo active, ſince it exerciſes powers. Or you may call it a third nature diſtinct from

matter

matter and ſpirit; you cannot call it ſpirit, as that implies the power of thinking alſo.

599.—*Anſwer.* I muſt call it ſpirit, in order to have ſome notion of what I ſay: but I have no notion of any action diſtinct from volition, neither can I conceive volition to be any where but in a ſpirit; therefore, when I ſpeak of an active being, I am obliged to mean a ſpirit: beſides, what can be plainer, than that a thing which hath no ideas in itſelf cannot impart them to me; and if it has perceptions, ſurely it muſt be a ſpirit. I know not what you mean by a third nature.

600.—*Objection.* How can creation be underſtood in your ſyſtem?

601.—*Anſwer.* Creation conſiſts in rendering perceptible, things before imperceptible to finite minds, and in the order and gradation related by Moſes. That ſuch beings were preſent at the time of the creation, appears by Job, chap. xxxviii. ver. 5. 7: "where waſt thou "when I laid the foundations of the earth, "(the poles) when the morning ſtars ſung "together, and the ſons of God ſhouted for "joy?" Their perceptions were not ſenſations, as they had no corporeal organs, but they might

might exactly reſemble them, as our own perceptions conſtantly do when we dream, though not received by the intervention of the ſenſes. At the time of the creation, a change, correſponding therewith, took place in the Divine intellect: this muſt be confeſſed, whatever ſyſtem is embraced: objects muſt then have been preſented to the Divine mind in a different manner from that in which they were known to him from all eternity, when they were merely poſſible. See N° 395.*

Objections ſtated in Berkeley's Principles of Human Knowledge.

602.—*Objection.* Does it not ſound harſh to ſay, we eat and drink, and are clothed, by ſenſations?

* Berkeley explains creation in a different manner; he thought no change took place in the Divine intellect, but that the archetypes of ſenſible things exiſted in the Divine mind from all eternity; but that creation conſiſted in rendering them perceptible to finite minds: if that were all, there could be no creation of ſenſible things, if ſpirits did not exiſt, which I would not affirm. I acknowledge no archetypes in the Divine mind; his mode of knowledge is above our comprehenſion.

603.

ſenſations to us, nearly as the words of a language ſuggeſt the ideas they are made to ſtand for.

606.—*Objection.* If extenſion and figure exiſt in the mind, muſt not the mind be extended and figured?

607.—*Anſwer.* No, no more than it can be called red or green when it perceives thoſe colours; muſt not all confeſs that we have ideas of plains, mountains, rivers, &c.? Yet no one thence infers that the mind, or thoſe ideas, are extended. To have extenſion attributed to the mind, it were neceſſary that the mind ſhould have parts, but to perceive extenſion that is not neceſſary: figure, in like manner being the termination of extenſion, is perceived by the mind, but cannot be attributed to it, having no extenſion.

608.—*Objection.* Is not the concurrent univerſal aſſent of mankind an invincible argument in behalf of matter, or the exiſtence of external things?

609.—*Anſwer.* Men, indeed, act as if they believed the immediate cauſe of their ſenſations were ſome ſenſeleſs unthinking being; but that they ſhould clearly apprehend any meaning

meaning marked by theſe words, and form thereof a ſettled *ſpeculative* opinion, this I am not able to conceive: this is not the only inſtance wherein men impoſe upon themſelves by imagining they believe thoſe propoſitions they have often heard, though at bottom they have no meaning in them.—Do not the bulk of mankind look on the antipodes and motion of the earth as monſtrous abſurdities? The univerſal miſtake originates in this, that the Supreme Being, the true and ſole cauſe of our ſenſations, is not marked out to our view by any particular collection of ſenſible qualities, as human agents are by their ſize, complexion, limbs, and motion; and becauſe his operations are conſtant, regular, and uniform; whenever the courſe of nature is interrupted by a miracle, or even varied by a prodigy, or rare event, men are ready to own a ſuperior agent.

610.—*Objection.* To what purpoſe then ſerves the various organization of vegetables, and the admirable ſtructure of the parts of animals?

611.—*Anſwer.* Though the fabrication of all theſe parts and organs be not abſolutely neceſſary to the production of any effect, yet

it is neceſſary to the production of things in a conſtant regular way according to the laws of nature, as there are ſeveral laws that run through the whole chain of natural effects: theſe are learned by obſervation and ſtudy, and may be applied to the conſtruction of artificial things for the uſe of mankind: thus a teleſcope is formed exactly on the ſame principles as the human eye, and the image formed on the retina evidently ſerves for no other purpoſe: if men had properly attended to the ſtructure of the eye, teleſcopes might have been invented many ages ago;* and it was by attending to it, that a defect in dioptric teleſcopes was actually mended.† By attending to the ſtructure of the ear, accouſtic inſtruments have been invented; and from obſervations on the ſtructure of the human neck, other mechaniſms have been contrived.‡

Many more ſuch inventions will probably occur in future ages; the proceſs of incubation has taught men the artificial multiplication of birds to any deſired degree:

* See the ſimilarity of both inſtruments of viſion beautifully illuſtrated in Paley's Natural Theology, p. 20.

† Ibid. p. 23. ‡ Ibid. p. 100.

the

the art of brewing originated from experiments made on corn at different ſtages of its growth; and by the diviſion of its ſprouts, a method has been found of multiplying it to an aſtoniſhing degree. Even where the proceſſes of nature in animals and vegetables are not perceived by us, ſtill the laws that govern their production remain, and cauſe them to be perceived by us, when expoſed to our view in that particular manner and ſtate which they ſhould exhibit if they had been all along perceived. Dr. Paley well remarks, that it is only by the diſplay of contrivance that the exiſtence, the agency, and the wiſdom of the Deity, could be teſtified to his rational creatures. Nat. Theology, p. 42.*

SECT. VII.

OBJECTIONS OF MR. DESTUTT TRACY.†

612. This gentleman ſets out with ſuch violent prejudices, ſo groſsly miſconceives

* The anſwer to the objections ſtated in this number is ſo complete, that even Dr. Doddridge allows its validity, in the midſt of his groſs miſconceptions of the Berkeleyan ſyſtem. See his Lectures, vol. I. p. 159.

† Mem. of the French Inſtitute, vol. III. p. 515.

Berkeley's tenets, entertains ſuch open contempt for all preceding philoſophers, that he ſcarcely thinks it neceſſary to employ any other argument than ridicule.

He tells us, that "when firſt he ventured to ſpeak of metaphyſicks, he did not think that *evidence itſelf* would become a ſubject of debate; that he did not think it neceſſary to inquire whether the univerſe itſelf was not a vain *phantom*, and life a ſucceſſion of *illuſions*." How groſs a miſrepreſentation! as if Berkeley had not clearly ſhewn the difference betwixt illuſions and realities, he adds, "without loſing myſelf in chimeras, I took things as they *truly* are:" an Algonquin would ſay as much, if the Copernican Syſtem were expoſed to, and rejected by him. And again, "this opinion might I think be ſimply rejected as abſurd, if two celebrated men had not mentioned it, or ſomething very near it." Theſe I ſuppoſe were *Deſcartes* and *Malbranche*; but he might have added more; for inſtance, *Condillac*, who thought it at leaſt doubtful whether extenſion be any thing elſe than a ſenſation;* *D'Alembert*,

* Traité des Senſations, Part IV. chap. v. p. 339. in 12mo.

bert, who, in 1763, though himſelf a materialiſt, ſaid, that Berkeley's Syſtem, though abſurd, could not be refuted; *Turgot*, who expreſsly aſſerts, that exiſting objects were nothing elſe but ſyſtems of ſimultaneous ſenſations, conſtantly re-appearing in ſimilar circumſtances, whoſe variations were governed by certain laws.* Mr. *Merian*, in many parts of the Memoirs of Berlin, evidently inclines to the Berkeleyan theory; nor is *Schawb* very diſtant from it. *Leibnitz* thought bodies to be phænomena; I ſay nothing of many Engliſhmen of diſtinguiſhed penetration and talents already mentioned, N° 529.—Yet Mr. Tracy thinks it a great hardſhip to be obliged "*ſeriouſly* to examine the queſtion, it "being no other (he ſays) than whether his "own body be ſomething or nothing: a "queſtion (ſays he) which would not have "exiſted, if his predeceſſors had not thought "proper to deny evidence itſelf, and exerted "all the ſubtlety of their wits to combat the "teſtimony of their conſciouſneſs." Not ſatisfied with theſe and other extravagant aſ-

* Vie de Turgot, p. 17.

ſertions, he calumniates Berkeley, pretending that he affirms we are ourſelves parts of the Supreme Being.*

613. Secondly, he aſſerts the whole of Berkeley's ſyſtem is grounded on a perpetual equivocation, confounding the impreſſion made on a ſentient being, which we call a ſenſation, and the quality which reſides, or may reſide, in another being, which is the cauſe of this ſenſation.†

614. Yet ſo far from confounding ſenſation with the cauſe of ſenſation, Berkeley peremptorily denies that it can have any other cauſe but the Supreme Being; and that any quality reſiding in any other being can be the cauſe of it.

615. Thirdly, he tells us, "that, Berkeley "begins by owning the intervention of the "ſenſes; now by the ſenſes ſuppoſe organi- "zation; theſe organs are material and ſen- "ſible things; and if, as Berkeley pretends, "ſenſible things are only ſenſations, the or- "gans muſt alſo be ſenſations; Quelle epou- "vantable Galimathias!"

616.—*Anſwer.* It is certain ſenſations, even

* P. 518. † P. 519.

of our own bodies, are obtained only through the intervention of the organs of the different ſenſes; the organs of ſenſe, when felt or expoſed to view, are known to us; but when hidden, as many of them are, they are known to the Divine Mind, and that ſucceſſion of laws by which they are governed, exiſts in the ſame manner as if they were actually perceived by ourſelves. See N° 505, and the ſucceeding numbers.

617. Fourthly, "Berkeley's whole ſyſtem would be ſubverted, if it were denied "that any thing but mind were capable of ſenſations: one would be much embarraſſed "to prove why *mind and ſpirit* alone ſhould "have the excluſive privilege of having ſenſations, and why this prerogative ſhould be "incompatible with the nature of what is "called *body*."

618.—*Anſwer.* No metaphyſician would be in the leaſt embarraſſed, taking *body* in the ſenſe in which hyloiſts commonly underſtand it, for an inert, ſolid, extended, diviſible ſubſtance.

619. This is all I find objected to Berkeley in this boaſted refutation; nay it concludes

with an almoſt direct avowal of the truth of his theory; for Mr. Tracy tells us, that two of Berkeley's aſſertions are undeniably true: namely, firſt, that there does not exiſt a being that can be called *matter*; but individual bodies alone exiſt, and not matter in general. And, ſecondly, that theſe bodies are known to us, only by the ſenſations which they cauſe; and that, relatively to us, *nothing exiſts but ſenſations and ideas.* Now, excepting the falſe ſuppoſition of cauſation, theſe aſſertions are perfectly Berkeleyan. It is true he attributes to Berkeley an aſſertion which he deems hypothetical, namely, that the cauſe of our ſenſations exiſts in a mind; now Berkeley ſtrongly contends that the will of the Supreme Being, and not barely his thoughts, is the cauſe of our ſenſations.

Objections of the anonymous Author of the article Metaphyſicks, in the Britiſh Encyclopædia, p. 545.

620. This writer is by far the moſt candid, unprejudiced, and clear-ſighted, of all the opponents of Berkeley; yet I cannot help thinking

ing he has been betrayed into an error by not ſufficiently attending to the doctrine of that great metaphyſician. He thinks Berkeley loſt ſight of that proper and accurate diſtinction firſt laid down by him, betwixt *ideas* and *notions*; and as he admits we have no *idea* of ſpirit, becauſe it cannot be perceived but only by the effects it produces: but yet it muſt be owned we have a *notion* of ſpirit, and alſo of the operations of the mind, ſuch as willing, loving, hating, as we underſtand the meaning of thoſe words; ſo this author thinks,

Firſt, that what is here ſaid of ſpirit, is equally applicable to material or ſolid ſubſtances; we have no idea, he ſays, of ſolidity or extenſion, becauſe they are not originally impreſſed on the ſenſes; but we have diſtinct, though relative, notions of them, for they are clearly perceived by the effects they produce; this he thinks at leaſt poſſible, as the biſhop owns, that from a cauſe, effect, operation, ſign, or other circumſtance, we may reaſonably infer the exiſtence of a thing not immediately perceived, and that it were abſurd to argue againſt its exiſtence from our having no direct or poſitive notion of it. Such,

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the author affirms, is exactly the caſe with reſpect to ſolid ſubſtances; theſe, he ſays, are not immediately perceived, but we infer their exiſtence from effects, ſigns, and other circumſtances, and we have very clear, but relative notions of them. Thus a man can open or ſhut his empty hand; but when he graſps an ivory ball, of ſome inches in diameter, he feels, that though the ſame power is exerted, his hand cannot be ſhut; he is conſcious there is no change in himſelf, and being certain that every effect muſt have a cauſe, he infers, with the utmoſt confidence, that the cauſe which prevents his hand from ſhutting is in the ball; or, in other words, that the thing which communicates to his eye the ſenſation of colour, and impreſſes on his hand a ſenſation of touch, muſt be ſolid and impenetrable. Solidity, however, he adds, is not the ſenſation itſelf, it is only the cauſe of the ſenſation, and therefore is ſo far from being an idea in our minds, that we are conſcious our notion of it, is that of a thing totally different from all our ideas of a thing external, at leaſt to our minds. This notion is merely relative, and inferred from the effects produced

duced on our ſenſes: that it is the ſame thing that communicates to our eye the ſenſation of colour, and has the power of reſiſting the compreſſion of our hand, is evident, becauſe, when the ball is thrown away, the reſiſtance as well as the actual ſenſation vaniſh.

621. I have given this plauſible reaſoning at full length, as its links are ſo connected, that each would loſe much of its apparent force if disjoined: but, to detect the fallacy of each, it is neceſſary to examine them ſeparately, though much of it has already been obviated by Berkeley himſelf. See N° 569.

622. And, firſt, I deny that it follows, that we have any notion of matter or material ſubſtance from this, that we have a notion of ſpirit though we can have no idea of it; for we are conſcious, that all the ſenſations and operations of our minds are the ſenſations and operations, each of the ſame mind; of this we are intuitively certain; and by this knowledge we define what we mean by *ſpirit*, and are ſaid to have a *notion* of it: but can we ſay with certainty, that the external cauſe of our ſenſations is matter? The author himſelf, p. 547, allows we cannot: nay, he *muſt* allow

allow it, for thoſe who contend for the exiſtence of matter, own that it cannot act upon ſpirit, and are obliged to call in the Supreme Being. So that its exiſtence cannot be inferred from any effect, operation, ſign, or other circumſtance: its probability he reſts on the general voice of mankind, p. 547. But of how little avail that is, has been ſhewn, N° 609, and its origin in the fourth ſection of this chapter. Moreover, a notion of it is impoſſible, as it involves a repugnancy. See N° 529. 550. 569.

623. Secondly, ſolidity is a mere ſenſation, and not a notion, for it is felt, as Dr. Reid himſelf acknowledges; nor can any ſolid ſubſtance be inferred from it. A hand, graſping a ſolid ball three or four inches in diameter, cannot be cloſed, though an empty hand can; but what prevents its cloſing but the ſenſation of reſiſtance, called *ſolidity?* and, that this ſenſation is merely relative, and not a thing that has an independent exiſtence, is evident, ſince a hand much ſtronger than the human, would find it perfectly ſoft or flexible. See N° 480. Water which, relatively to us, is

ſo

ſo ſoft, is relatively to ſome inſects ſo hard, that they can walk and run upon it.

624. Thirdly, being intuitively certain, that every effect has a cauſe, the author thinks it may be inferred, that the cauſe which prevents the hand from ſhutting is in the ball. But he ſhould recollect, that the ſenſation of reſiſtance is included in the ſignification of the word *ball*, and in this ſenſe it may be ſaid to be in it; and it is this ſenſation that prevents cloſing the hand: no other cauſe produces that effect, but the cauſe of the ſenſation itſelf, namely, the Supreme Being. That an unknown fictitious thing ſhould be included in the ball, is perfectly unintelligible. To ſay we have a notion of ſuch a thing, is mere begging and taking for granted the very point in queſtion, and without any ſort of neceſſity, ſince the Divine intervention muſt at laſt be owned, which alone is ſufficient.

625. Fourthly, the author adds, that it is the ſame *thing* which communicates to our eye the ſenſation of colour, and has the power of reſiſting the compreſſion of our hand, is evident. This is true, if the word *thing* be taken for an aggregate of ſenſations, as it ſhould be,

be, for colour is one of that aggregate; but it cannot be inferred, that the ſenſation of reſiſtance or ſolidity, is that which cauſes colour, which is I ſuppoſe what is meant by communication; the colour is referred to it only by a long and early aſſociation.

626. Again, the author contends, that Berkeley's argument, in putting the primary qualities on the ſame footing as the ſecondary, is fallacious; for that it is not true, as Berkeley aſſerts it to be, that the primary qualities are inſeparably united with the ſecondary; for the author ſhews, that the extenſion, ſolidity, and rotundity, of a ball, may be perceived in the dark. This is true with reſpect to colour, for blind men perceive rotundity and ſolidity. But the biſhop does not confine his argument to colour; his words are, "for my "own part, I ſee evidently, that it is not in "my power to frame an idea of a body ex- "tended and moved; but I muſt withal give "it ſome colour, *or other ſenſible quality*, which "is acknowledged to exiſt only in the mind." Principles of Human Knowledge, ſec. X. Thus his argument remains unanſwerable; for heat, cold, or warmth, are allowed to be ſecondary qualities, and to exiſt only in the mind; yet

ſolidity

ſolidity or extenſion cannot be abſtracted from one or other of theſe, when any diſtinct ſenſible impreſſion is made on the organs of tact; they muſt exiſt where theſe ſecondary qualities exiſt, namely, in the mind alone.

627. Laſtly, the author candidly owns, that by the immediate agency of the Deity all our ſenſations might be what they are, though matter had no exiſtence; and that Berkeley had proved this, by unanſwerable arguments, and that he obviated the irreligious ſophiſtry of Hume. It is ſtrange then he did not perceive that matter was entirely uſeleſs, ſince, even admitting its exiſtence, the Divine agency muſt ſtill be called in: and ſince he allows that every thing might go on juſt as well, even if it did not exiſt, he ſhould alſo allow that its exiſtence is at leaſt doubtful.

Objections of Dr. Reid.

628. This juſtly celebrated profeſſor informs us, he had once embraced the Berkeleyan doctrine, but had afterwards renounced it, in conſequence of his having rejected that of ideas: his objections are ſo widely diffuſed through ſeveral volumes, that it is not eaſy to collect

collect them; nor indeed is it neceſſary, for moſt of them have been already obviated. His principles, I allow, are more ſubtle and ingenious than thoſe commonly adopted by Berkeley's opponents, but their truth is far from being proved, as I ſhall have occaſion to ſtate in the appendix to this ſection.

629. Firſt, the Doctor tells us, "that by his "ſenſes he perceives figure, colour, hardneſs, "ſoftneſs, motion." This nobody will diſpute; "but theſe (he ſays) are qualities, and "muſt be in ſomething, that is figured, co-"loured, hard or ſoft." This has been anſwered, N° 624. Figure, colour, &c. are not in any thing diſtinct from the mind, and by this they are perceived, but not contained in the groſs literal ſenſe. See N° 595. 606. "It is "not to theſe qualities, but to that which is "the ſubject of them, that we give the name "of body." I ſhall here content myſelf with examining one of theſe qualities, namely colour. The Doctor tells us, that "all men "who are not tutored by modern philoſophy, "underſtand by colour, not a ſenſation of the "mind, which exiſts only when perceived, "but a quality, or modification of bodies, "which

"which continues the ſame, whether ſeen or "not."—"When a coloured body is pre- "ſented, there is a certain apparition to the "eye or to the mind, which we call the *ap- "pearance of colour*, and this exiſts only when "perceived; but by the conſtitution of our "nature we are led to conceive it as a ſign "of ſomething external: it ſuggeſts the con- "ception and belief of ſome unknown qua- "lity which occaſions the idea; and it is to this "quality (which is altogether unlike colour) "that we give the name of colour."*

630. Now I would venture to appeal to any unprejudiced perſon, whether it be not to what we *ſee*, and not to any unknown quality that we do *not ſee*, that all mankind give the name of *colour*;† it is true they think it to continue when unſeen, but that is becauſe they think the very thing they ſee (which philoſophers call the ſenſation) remains in the dark; nor do they ever imagine any cauſe or quality cauſing colour but dying ingredients. They have the ſame opinion of the permanence of colour when unſeen that the Doctor

* Reid on the Mind, 171, 172, 173.

† See Stewart, 579.

has of the permanence of ſolidity and extenſion when *unfelt*; and as he thinks theſe immediately perceived, and not their cauſes, they alſo think colours immediately perceived, and not any fictitious cauſes. How much would they be ſurpriſed if they heard of the diſtinction betwixt *colour* and *the appearance* of colour, which no way reſembled colour? According to the Doctor, the appearance of colour ought to be the appearance of thoſe modifications or qualities which the Doctor calls real colours; yet, ſo far are theſe from *appearing*, that he owns them to be unknown; and though he ſays they are unknown, yet ſtill he ſays they are unlike to any colour.

631. The reaſons that induce the Doctor to call theſe qualities or modifications of bodies *real* colours, are, firſt, "that theſe modi-"fications remain when the appearance of "colour ceaſes." But who can tell, ſince they are unknown? And, even if they did remain, why ſhould they be deemed the cauſes of colour, to which they are altogether unlike, and which they are altogether incapable of producing, any more than the other qualities of a coloured body, which are alſo thought to remain when unperceived? I ſay

cauſes,

cauſes, becauſe they cannot be conſidered as *ſigns*, ſince they are unknown. When colours are unperceived by any other mind, they exiſt only in the Divine. The laws of the Supreme Being are the only cauſe, either of their exiſtence or re-appearance, as all muſt allow. The cauſes the Doctor aſſigns, and which he thinks mankind call *real colours*, are altogether unintelligible; for, as Locke juſtly obſerves,* "ſenſations diſcover nothing of bulk, figure, "or motion of parts in their production; nor "can reaſon ſhew how bodies, by their bulk, "figure, and motion, ſhould produce in the "mind the ideas of *blue* or *yellow*, &c. The "ideas we have of colours, ſounds, &c. con-"taining in them nothing at all of bulk, figure, "or motion, we (that is the bulk of man-"kind) *are not apt* to conſider them as the ef-"fects of the primary qualities, which ap-"pear not to our ſenſes to operate their pro-"duction, and with which they have not any "apparent congruity or connexion." Therefore, by the teſtimony of Mr. Locke, it is not on theſe primary qualities, or their mo-

* B. ii. chap. viii. ſec. 25.

difications, that the bulk of mankind beſtow the name of colour; on the contrary, he ſays, that "we (the bulk of mankind) are for-"ward to imagine, that thoſe ideas are the "*reſemblances* of ſomething really exiſting in the "objects themſelves,"* and ſo in fact they all think.

632. Secondly, the Doctor tells us, "the colour of a roſe remains when the *appear-ance* changes, as it does when the roſe is viewed through a pair of green ſpectacles; but he does not conceive that the colour of the roſe is changed."†

633. I anſwer, that not only in appear-ance, but in reality, the colour of the roſe is changed; for the colorific ſenſation of the ſpectacles and that of the roſe are mixed, and the mixed colour alone is perceived; but the colour of the roſe ſingly would reappear, if the ſpectacles were removed, and in that ſenſe may be ſaid not to be changed, and in no other. This the Doctor himſelf muſt allow, for he cannot pretend the ſenſation itſelf is

* Stewart on the Mind, p. 73, in 8vo.

† Reid on the Mind, p. 171.

permanent,

permanent, but only the cauſe of the ſenſation. Such changes are incident to other ſenſations alſo. Thus, a ſweet taſte and a ſalt taſte are agreeable apart, but nauſeous when mixed: a ſimple muſical ſound is agreeable, and ſo is it when combined with its ſharp third, but ſhocking when joined with its ſharp fourth: half a dozen drugs of a certain kind, ill ſcented when ſmelled ſeparately, being put together, emit an agreeable ſmell, as Lemery experienced; the ſmell of each no longer remains, but is loſt in the mixture.

634. Thirdly, the Doctor adds, "we may, "by a variety of optical experiments, change "the appearance, figure, and magnitude, in a "body, as well as that of colour; we may "make one body appear to be ten; but all "men will believe, that as a multiplying glaſs "does not produce ten guineas out of one, "nor a microſcope turn a guinea into a ten-"pound piece, ſo neither does coloured glaſs "change the real colour of the object ſeen "through it."

635. Here the Doctor has overlooked three points worthy of his conſideration: Firſt, that

colours may be conſidered as ſenſations, and alſo as ſigns. Secondly, that objects, ſuch as guineas, include tangible as well as viſual ſenſations. Thirdly, that glaſſes may affect viſual, but cannot tangible ſenſations; therefore they may change the viſible colours, or magnitude, or figure of an object, or even multiply the ſame colour, figure, or magnitude, and thus preſent ten viſible guineas, but can affect no alteration in the tangible, with which they have no relation or connexion; hence the parity entirely fails: nay even, as *ſigns*, the ſpectrums they produce are inoperative; for the power of ſigns ariſes from repeated aſſociations with the things ſignified; and here there is not even a ſingle aſſociation but with the tangible ſenſation of the ſolitary guinea. How the microſcope acts has been already explained, N° 590.

636. As to what the Doctor ſays, "that "if a perſon ſhould deny that colour, figure, "motion, reſiſtance, &c. are qualities, he "would leave him to enjoy his opinion, as a "perſon who denies firſt principles, and not "fit to be reaſoned with;" I can only ſay, that it ſurpriſes me much, as he owns he was once

once perſuaded of the truth of the Berkeleyan doctrine; and ſurely he had at no time denied firſt principles.

637. Further the Doctor objects, that in every language there are adjectives which require a ſubſtantive to which they belong; that is, every attribute muſt have a ſubject: this he takes to be a firſt principle. And ſurely this principle may be admitted, if, as adjectives are of themſelves unlimited, by *belonging* he would underſtand reference to ſomething elſe, many indeed referring to a tangible ſenſation which is felt, prognoſticated, or included in the ſubject; but meaning, as he certainly does, a ſubject of inherence, I think him wrong, even in the caſes he adduces of *wiſdom*, *virtue*, *goodneſs*, for they are not qualities, but mere abſtract words, denoting different actions deſerving approbation. Nor is he leſs ſo in attributing primary or ſecondary qualities to an unknown, unintelligible, uſeleſs material ſubſtance, an attribution which it were ſtrange to erect into a firſt principle.

638. And as to what the Doctor preſſes upon us with reſpect to the general agreement of mankind in believing the exiſtence

of matter, it ſeems to me of little weight: ſuch agreement would equally prove the truth of polytheiſm, idolatry, magick, &c. from the belief and practice of which abſurdities, even the Jews were difficultly reſtrained; to ſay nothing of various phyſical errors generally credited. Error in ſpeculative matters is much more natural to unreflecting man, than truth.

639. Again, the Doctor ſays, "ſuppoſe I "am pricked by a pin, the pain I feel is a "ſenſation, but the pin is not a ſenſation, nor "has it any reſemblance to a ſenſation; the "pin has figure, thickneſs, length, and weight; "a ſenſation has none of theſe qualities."

640.—*Anſwer.* This argument is the principal ſource of all the Doctor's miſconceptions of this ſubject. To undeceive him, I would barely aſk him, is the pin any thing elſe but its length, thickneſs, figure, and weight? If it be not, how can it be ſaid to *have* thoſe qualities? If it be, what is it? He ſurely cannot tell. Again I would aſk him, does he know any thing of the pin but what he perceives by his ſenſes? and is not perception by the mediation of the ſenſes univerſally called a ſenſation?

tion? Does he not ſee the colour of the pin? does he not feel its length, figure, and thickneſs, and alſo its point? can he not form an idea of the pin in its abſence? and can he have an idea of that which was never perceived by the ſenſes? is not the word *pin* a term denoting the aggregate of theſe ſenſations? In this ſenſe a pin may be ſaid to have figure, length, thickneſs, and ſharpneſs, juſt as a houſe is ſaid to have walls, doors, windows, &c. they being its component parts. A ſenſation, or an aggregate of ſenſations, conſidered as modifications of the mind, cannot be ſaid to have length, thickneſs, or figure, (but they may be ſaid to be perceptions thereof, ſee N° 606, 607,) no more than they can be ſaid to be coloured, when colours are perceived. The Doctor muſt allow, that when, in the abſence of the pin, he forms an idea of it, or a conception as he chuſes to call it, his idea repreſents to him the figure, length, and breadth, of the pin; yet he will not ſay, that his idea or conception has any length, thickneſs, or figure.

641. Profeſſor Stewart* owns, that "it is

* P. 3.

"not

" not matter which we perceive by our ſenſes,
" but only extenſion, colour, figure, and cer-
" tain other qualities, which the conſtitu-
" tion of our nature leads us to refer to ſome-
" thing which is extended, figured, and co-
" loured: the caſe, he ſays, is preciſely the
" ſame with reſpect to mind; we are not
" conſcious of its exiſtence, but we are con-
" ſcious of ſenſation, thought, and volition;
" operations which imply the exiſtence of
" ſomething which feels, thinks, and wills."

642. Here I muſt beg leave to differ from this excellent metaphyſician: the conſtitution of our nature cannot force us to believe that any thing is extended, figured, or coloured, but what we feel and ſee, though the conſtruction of language often compels us to ſpeak of theſe ſenſations as if they were qualities of ſomething elſe: this was explained, N° 541. There are neither ſubſtantives nor adjectives in our perceptions; theſe are mere creatures of language. Now language has given birth to the moſt monſtrous deluſions; it ſeduced the ſcholaſtics to think that ſome diſtinct reality correſponded even to the moſt abſtract terms; hence *relations* were thought

thought to be realities diſtinct from correlated things; hence *nature* was thought to be a real thing, diſtinct from the perſons to which it was attributed, and at laſt erected into a goddeſs; hence *equinity*, *hecceity*, *petreity*, were believed to have correſponding entities; and many other quiddities which I paſs over. Matter, as ſomewhat diſtinct from our perceptions, is juſt ſuch another abſurdity; nay more intolerable, as it ſuppoſes the union of things incompatible, namely, ſenſations and an inſentient ſubſtance; for extenſion and figure have been proved to be ſenſations, and colour is allowed to be a ſenſation; for what Dr. Reid calls colour, he allows to be totally unlike any that was ever ſeen; ſee N° 629. If the conſtitution of our nature forced us to believe the exiſtence of matter, ſurely neither Deſcartes nor Malbranche would have thought revelation neceſſary to induce us to believe the exiſtence of bodies, and certainly they were not ſceptics.

643. As to the parity which the learned profeſſor inſtitutes betwixt belief in the exiſtence of mind, and the exiſtence of matter, it is far from being juſt. The exiſtence of mind

is

is demonſtrated by our conſciouſneſs of the identity of the principle of its various perceptions and operations; ſee N° 372; and hence none but Mr. Hume pretended to entertain even a ſpeculative doubt of it; but of the exiſtence of matter, no proof has ever been given; on the contrary, it has been refuted and ſhewn by Berkeley to be impoſſible, in whatever ſenſe it can be taken, whether as cauſe, inſtrument, or occaſion, and abſolutely denied by other philoſophers of note, or at moſt believed as an article of faith. The profeſſor even owns, that the evidence of the exiſtence of mind is ſtronger than that for the exiſtence of matter; for the former, he ſays, is ſuggeſted by the ſubjects of our conſciouſneſs, and the latter by the objects of our perceptions. The caſe is then not preciſely the ſame, but far different; for this fictitious object of our perceptions was never perceived, but is merely an inference ſuggeſted by our prejudices. How then the learned profeſſor could ſtyle the ſentiments of Berkeley *reveries*, I cannot well imagine: that he was biaſſed by his partiality to Dr. Reid is evident; however,

ver, the Doctor never uſed ſo harſh an expreſſion.

644. That the concluſions of Berkeley are by no means ſceptical, is ſo evident, that Dr. Reid allows the fact; but I think the principles of the Doctor, as expoſed and concentrated by the learned profeſſor, lead directly to the moſt dreary ſcepticiſm; for the profeſſor* tells us, "that the mind is ſo formed, "that certain impreſſions produced on our "organs of ſenſe, by external objects, are "followed by correſponding ſenſations; and "that theſe ſenſations, which have no more "reſemblance to the qualities of matter, than "the words of a language have to the things "ſignified, are followed by a perception of "the qualities of the body, by which the im-"preſſions had been made. That all the ſteps "of this proceſs are equally incomprehenſible, "and that, for any thing we can prove to the "contrary, the connexion between the ſen-"ſation and the perception, as well as be-"tween the impreſſion and the ſenſation, "may be both arbitrary." Now if the con-

* Sewart on the Mind, p. 92.

nexion

nexion between ſenſations and perceptions be arbitrary, we may have ſenſations without perceptions; that is to ſay, we may have the ſenſation of ſeeing, and yet perceive nothing; that is, we may ſee, and yet ſee nothing; we may ſee a colour, or what Dr. Reid calls the *appearance* of a colour, and yet not perceive it; we may have the ſenſation of feeling, and yet perceive nothing. This indeed is *incomprehenſible*; if this be ſo, our whole life may be a dream, wherein we imagine we perceive things, and yet perceive nothing. Such is the conſequence of diſtinguiſhing ſenſation from perception. Perception may be indeed without ſenſation, as in God and angels, but ſenſation cannot be without perception, for they are identified, they being the ſame thing differently conſidered; ſenſation being knowledge gained through the mediation of the ſenſes, and perception being knowledge abſtractedly conſidered. Let it alſo be remarked, that the general incomprehenſibility of all things was the diſtinguiſhing tenet of the ancient ſceptics. Now what can be comprehended, if we may doubt of the connexion betwixt ſenſation and perception, or rather that

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the former includes the latter? Yet the profeſſor adds, "it is juſt as difficult to explain "how our perceptions are gained by the "means of ſenſations, as it would be upon "the ſuppoſition that the mind were all at "once inſpired with them." It would indeed be much more difficult, if the latter were diſtinct from the former; for a thing is ſufficiently explained if its cauſe be aſſigned; in caſe of inſpiration, God would be the immediate cauſe of our perceptions; whereas of a *nonentity*, ſuch as a ſenſation without a perception, no cauſe can be aſſigned.

645. Laſtly, the Doctor, after allowing that every thing relating to ourſelves would equally ſubſiſt in the Berkeleyan hypotheſis (as he calls it), as in that commonly received, and that the exiſtence of the Supreme Being would be placed in a ſtill ſtronger light than in the common;* yet ſtill he thinks, "it "takes away all the evidence we have of "other intelligent beings like ourſelves; "what I call a father, a brother, or a friend, "is only a parcel of ideas in my own mind, "and being ideas in my mind, they cannot

* 1 Reid, 252, 253. On the Mind, 107. Encyclop. Britt. 544. 547. 549.

poſſibly

" poſſibly have that relation to another mind,
" which they have to mine, any more than
" the pain felt by me, can be the individual
" pain felt by another. I can find no principle
" in Berkeley's ſyſtem which affords me even
" a probable ground to conclude, that there
" are other intelligent beings like myſelf, in
" the relations of father, brother, friend, &c.
" I am left alone in the univerſe, &c."

646. To this I anſwer, that the Biſhop has not overlooked this objection; he adverts to it in his Third Dialogue; he there tells us, " it is granted we have neither an *immediate* " *evidence* (ſuch as we have of our own per- " ceptions,) nor a *demonſtrative knowledge* " (ſuch as we have of the exiſtence of God) " of the exiſtence of other finite ſpirits; but " it will not thence follow, that ſuch ſpirits " are on a foot with material ſubſtances; " if to ſuppoſe the one be inconſiſtent, " and if it be not inconſiſtent to ſup- " poſe the other; if the one can be inferred " by no argument, and there is a probability " of the other; if we ſee ſigns and effects " indicating finite agents like ourſelves, and " ſee no ſign or ſymptom whatſoever that " leads to a rational belief of matter; I ſay, I

have

" have a *notion* of ſpirit, though I have not, " ſtrictly ſpeaking, an *idea* of it, but know it " by reflexion, &c." Now by reflexion, I preſume, the Doctor might find, that he has no knowledge by ſenſation or perception of the minds of other intelligent beings like himſelf, but that he collects his knowledge of them from their actions and effects, analagous very nearly to his own, in ſimilar circumſtances, and every other ſign of their exiſtence; he has therefore not indeed a metaphyſical, but the higheſt moral and phyſical certainty of their exiſtence; he has no other of the viſcera of thoſe he converſes with; he neither ſees nor perceives their interior; does he therefore doubt of the exiſtence of thoſe parts? Secondly, as to the *bodies* of his father, brother, friend, &c. he certainly knows them immediately only by his own ſenſations; and ſurely the Doctor muſt allow this, ſo far as regards their colour, voice, language, and other ſecondary qualities, as they are called. By teſtimony he becomes acquainted with the foundation of the relation in which he ſtands to each of them; he can know it no otherwiſe in the Doctor's hypotheſis. And as to

what are called the *primary qualities*, as extenſion and figure, he not only knows them in his own perceptions, but from their conſtancy and uniformity in his own mind, and the ſimilarity of his own mind to the minds of other individuals; he infers that ſenſations, ſuch as thoſe that conſtitute his own body, conſtitute alſo the bodies of thoſe individuals: this judgment being formed in his earlieſt infancy, and inceſſantly repeated, becomes ſo habitual, that its conſciouſneſs is inſtantaneouſly forgotten, as is the conſciouſneſs of the neceſſary diſpoſition of the tongue or lips for the pronunciation of words, though at firſt gradually learned.

647. I ſhall here conclude this important inquiry with ſome juſt reflections made by Dr. Reid himſelf,* leaving their application to the unprejudiced reader. "The world "has been ſo long befooled by hypotheſis in "all parts of philoſophy, that it is of the ut- "moſt conſequence to every man, who would "make any progreſs in real knowledge, to "treat them with juſt contempt, as the re- "veries of vain and fanciful men, &c."

* 1 Reid, 78, 79.

And

And again, " the firſt rule laid down by the " great Newton is this; ' no more cauſes of " natural events ought to be admitted, but ſuch " as are both true, and are ſufficient for ex- " plaining their appearances." Now matter is avowedly not ſufficient to explain the origin either of ſenſations or of any other perception; for, even admitting it, all is ſtill incomprehenſible, and the Divine agency muſt ſtill be called in, and is the only ſufficient cauſe of all theſe events; therefore the interference of matter is totally ſuperfluous.

APPENDIX TO CHAP. II.

So many new obſervations, equally ſolid and ingenious, occur in Dr. Reid's writings, and his authority ſtands ſo deſervedly high in Great Britain, that I cannot totally diſmiſs this ſubject without examining the principles that unfortunately ſeduced him to abandon the antihyloiſtic ſyſtem, which he had once embraced. He was not then ſufficiently unprejudiced; but, filled with juſt abhorrence of the impious principles of Hume, he thought he could not fly to too great a diſtance from

them. The Berkleyan doctrine he precipitately conceived to have been their foundation. I ſhall confine myſelf therefore to ſuch remarks as immediately relate to his oppoſition to it.

648. Berkeley having founded his doctrine on the three following propoſitions;

Firſt, that what philoſophers then called primary qualities of bodies, namely extenſion, ſolidity, figure, and motion, ſtood exactly on the ſame footing as thoſe qualities which they called ſecondary, namely colours, ſounds, heat, cold, &c.; and as theſe were admitted to be mere ſenſations, and conſequently could not exiſt but in a mind or ſenſient ſubſtance; ſo neither could the ſo called primary qualities.

649. Secondly, that all ſenſations were impreſſed upon us *ab extra*; and as matter, even if ſuch a thing exiſted, as it is commonly ſaid to be, cannot act upon mind, therefore theſe ſenſations muſt be impreſſed immediately by the Supreme Being, or, which amounts to the ſame thing, in conformity to certain laws of which he alone is the author

and

and alone executes; no other being poſſeſſing that power.

650. Thirdly, that we have notions of many things, for inſtance, of God and of the human mind; the import of abſtract terms, &c.; though we can have no idea of them, as *ideas*, properly ſo called, are mere faint copies of ſenſations; and it is certain we can have no ſenſation either of God or of the human mind.

651. In oppoſition to the firſt principle, Dr. Reid denies that primary and ſecondary qualities ſtand on the ſame ground; Firſt, "becauſe our ſenſes give us a direct and diſ-"tinct notion of primary qualities, but of the "ſecondary they give us but only a relative "and obſcure notion." I think they furniſh us with a clear and diſtinct knowledge of both, for what can be clearer than our knowledge or perception of colours, ſounds, taſtes, ſmells, &c.; inſomuch, that the very epithet *clear* is borrowed from the extreme perfection of viſual perception; for by *clear* I mean what Locke calls a clear idea, namely, a full and evident perception.* And Condillac ſays,

* B. ii. C. xxix. ſec. 4.

*quoi de plus clair que les perceptions de ſon, & des couleurs quoi de plus diſtinct?** And Leibnitz holds the ſame language.† So that the Doctor muſt have annexed ſome other ſignification to the word *clear* of which I am ignorant. It is true that the ſo called ſecondary qualities are incapable of definition, but that ariſes from their being ſo clear, that no definition can make them clearer. The Doctor ſays, our ſenſes afford us only a relative notion of them; I ſuppoſe he means, a relation to tangible objects; but this relation ariſes not from their nature, but from a long and early aſſociation; and hence Cheſelden's patient diſcovered no ſuch relation at firſt. Many taſtes, ſounds, and ſmells have no ſuch relation. The primary qualities ſeldom have any ſuch relation, as they themſelves, being the moſt important, are the things ſignified; yet ſometimes they have, for the ſight or feeling of a pear or of an egg will often ſuggeſt their reſpective taſtes, but this does not prevent them from being in their own nature abſolute.

* Connoiſſ. Hum. C. ii. ſec. 11.

† Nouv. Eſſais, p. 213.

652. Secondly, the Doctor ſays, "there "are no diſputes about the nature of primary "qualities, no different opinions of the na- "ture of extenſion, figure, or motion; where- "as the nature of ſecondary qualities not "being obvious to ſenſe may be a ſubject of "diſpute." The Doctor ſurely did not recollect that various opinions were held of the nature of extenſion; that ſome thought it neceſſarily ſolid, and even boundleſs; that others thought mere extenſion uncreated, and an attribute of the Divinity; that Locke derided the uſual definition of extenſion, B. ii. C. xiii. ſec. 15, and thought it (extenſion) as incomprehenſible as any thing belonging to the mind. B. ii. C. xxiii. ſec. 26. Leibnitz thought extenſion to be a mere phænomenon; ſome think it infinitely diviſible, others not. In the ſame manner various definitions have been given of motion, which may be ſeen in Locke, B. iii. C. iv. ſec. 8, 9; and Chambers, article *Motion*. On the contrary, the nature of ſecondary qualities admits of no diſpute; it is only the diſpoſition or kind of tangible things, which are deemed their occaſional cauſes, that admits of any; for what

diſpute can ariſe concerning the nature of *red* or *ſweet*, hot or cold? though the occaſional cauſes of them may be variouſly explained.

653. When Berkeley ſaid, that primary and ſecondary qualities ſtood on the ſame footing, he meant no more than that they were equally ſenſations; that is, were known by the mediation of the ſenſes, which cannot be denied. Whether diſputes aroſe concerning their nature or not, is of no conſequence, but totally foreign to his argument.

654. In oppoſition to the ſecond principle the Doctor affirms, that "all the operations of the mind, or modes of thinking, are *active*, and in all ages and languages are expreſſed by verbs of an active ſignification," 1 Reid, 23, 24; ſuch as ſeeing, hearing, &c. It ſeems, therefore, to have been the natural judgment of mankind, that the mind is active in its various ways of thinking; and, p. 103, he ſays, "there is no operation of the underſtanding, in which the mind is not in *ſome degree* active; and hence mankind have expreſſed theſe operations by active verbs." The fact, however, does not exactly correſpond with this obſervation; for if the Latins ſay *video*, they alſo ſay *intueor*;

intueor; if they ſay *dono*, they alſo ſay *largior*; if the Greeks ſay ειδω; they alſo ſay Οπτομαι. So theſe modes have no connexion with the active or paſſive ſtates of the mind. Moreover, *video* is equivalent to *ſum videns*, and all active verbs may be, and are by logicians ſo conſidered. Hence, probably, the Doctor, p. 276, ſays, he diſputes not whether ſenſation may be called an operation or a feeling. Now if we are not ourſelves the operators of our ſenſations, and if matter cannot act on ſpirit, is it not evident, that our ſenſations are impreſſed upon us by the Author of our being? Or in other words, that we receive them ſolely from him? Impreſſion is merely a metaphorical expreſſion, denoting no more than we are not ourſelves the efficient cauſe of their exiſtence. The Doctor juſtly defines an impreſſion to be a change produced in ſome paſſive ſubject, by the operation of an external cauſe. We are indeed active in our attention to them, in many caſes, attention often proceeding from the will; and alſo in taking the neceſſary ſteps to procure them, as we may in various inſtances.

655. The third principle the Doctor both miſunderſtands and miſapplies: he miſunderſtands

ſtands it, in confounding notions with ideas, which Berkeley called ideas of imagination, in contradiſtinction to ſenſations, which he unfortunately called ideas of ſenſe. The Doctor tells us, 1 Reid, 271, that "it is one "thing to ſay I have the ſenſation of pain, "and another to ſay I have a notion of pain. "The laſt expreſſion ſignifies no more than "that I underſtand what is meant by the "word *pain*; the firſt that I really feel pain: "but I can find no diſtinction betwixt the "notion of pain and the imagination of it;" or, indeed, between the notion of any thing elſe and the imagination of it. Here it is plain he miſapprehends Berkeley's application of the word *notion*. That great metaphyſician never denotes by it things of which we can have an idea, but ſolely things of which we can have no idea, as God and the human ſoul, which we know to exiſt, though we can form no idea of them, as they are not objects of ſenſe, of which alone ideas can be had: and to the knowledge of the ſignification of ſigns, and of abſtract or complicative words, ſee Chap. I. Conſequently the biſhop would never ſay a *notion of pain*, but only an idea of pain, or a knowledge of pain,

pain, if treating of the knowledge which God has of it, who is incapable of feeling it. Surely the Doctor may ſay he has a notion of God or of the human ſoul, though he cannot ſay that he imagines them, or can form an imagination of them.

656. Again the Doctor miſapplies this word, when he ſays, p. 264, that if conſciouſneſs and reflexion furniſh us with notions of ſpirits, may not our ſenſes furniſh us with notions of bodies and their attributes? No; our ſenſes furniſh us with ſenſations, and it is the aggregate of theſe we call *bodies*; they furniſh us with nothing elſe; but the Doctor, by *bodies* means matter, and of this certainly we can have neither notion nor idea, ſee N° 569. The Doctor, p. 265, ſays he perceives matter *objectively*, that is, ſomething that is extended and ſolid; yet we know nothing either of extenſion or ſolidity, but merely the ſenſations ſo called; and that theſe ſenſations muſt have an external cauſe, and that matter as above defined, cannot be that cauſe, as it cannot act on ſpirit, and is in itſelf impoſſible.

657. To Dr. Reid it ſeems ſtrange, that a pious and learned Biſhop ſhould advance an opinion

opinion ſo contrary to nature and to common ſenſe as that of the non-exiſtence of matter. And doubtleſs the cotemporaries of Copernicus thought his ſyſtem ridiculous, and contrary to common ſenſe. To the Biſhop, were he living, it would ſeem at leaſt equally ſtrange, that ſo pious and excellent a man as Dr. Reid ſhould take ſuch pains to uphold the exiſtence of a ſubſtance grounded merely on vulgar prejudices, and which was in all ages, and ſtill is, the ſtrong-hold of atheiſts and materialiſts. It is ſaid, that Dr. Clarke refuſed to undertake refuting it. General Biography, art. *Berkeley*.

CHAPTER III.

SECT. I.

OF IDEAS.

658. Ideas have commonly been underſtood in a ſenſe too vague and unlimited. Locke, B. ii. C. viii. ſec. 7, beſtows this name on whatever is the object of perception, thought, or underſtanding. This is certainly the popular ſenſe of the word, but philoſophers, more attentive to preciſion, as Berkeley, Hume, and Watſon,

Watſon, have confined the ſignification of ideas to the repreſentation of images, or copies of paſt ſenſations, and of ſenſations only. Thus, when we think of or recollect the different parts of a houſe which we have ſeen, and can mentally perceive its various apartments, ſtairs, windows, &c. we may be ſaid to have an idea of it. So we have an idea of a ſong which we heard and recollect. But ſuch mental repreſentations are much more feeble, unſteady, indiſtinct, and defective, than the original ſenſations of which they are the copies; and commonly ſo much the more feeble, as more time has intervened betwixt them and the original ſenſation.

659. The ideas of the objects of ſight are by far the moſt lively: thoſe of ſound approach them moſt in point of vigour: thoſe of ſmell and taſte are far weaker, and leſs durable: thoſe of touch are ſtill more feeble, unleſs recent; after ſome time they fade away.

660. In receiving ideas, the mind is paſſive, as it is in receiving ſenſations; but as we can *occaſion* many ſenſations by removing the obſtacles to their reception, by acts of our will,

(for

(for inſtance, we can ſee objects by opening our eyelids,) ſo we can excite ideas in our minds by attention to the thoughts of objects aſſociated with them, either naturally or artificially by ſigns, as will be ſeen in the ſequel.

661. Some have cenſured Berkeley for calling ideas copies of ſenſations, as he elſewhere aſſerted, that nothing reſembled a ſenſation but another ſenſation: but it is evident the biſhop meant no more, than that nothing fully reſembled a ſenſation but another ſenſation, juſt as though nothing is in all reſpects like a man but another man; yet one may ſay, that a good picture of any man reſembles that man.

662. Ideas are either ſimple, complex, or compound.

662.[b] *Simple* ideas are thoſe which repreſent or repeat to us the ſimple ſenſation we already experienced, as the ideas of ſounds, ſmells, taſtes, heat, cold, extenſion, ſolidity, &c.

663. *Complex* ideas are thoſe that repreſent two or more perceptions of the ſame ſenſe, as colour and extenſion, by the ſight, or two or more ſenſations received by different ſenſes, but indiſſolubly aſſociated, and as it were conſolidated,

ſolidated, by long and uninterrupted union. Such as the ideas of colours, which are always connected with that of tangible extenſion, on which they appear to be ſpread; and ſometimes with the ideas of extenſion, ſolidity, and heat; ſuch is the idea of a red-hot iron; or that of ice, in which the ideas of cold, extenſion, and ſolidity, and ſometimes of colour, are connected. In taſtes alſo the ideas both of ſavour and extenſion are connected.

664. *Compound* ideas are thoſe which repreſent various aggregates connected and denoted by one name, each of which, and alſo their connexion and aggregation, had previouſly been perceived by ſenſe; ſuch as houſes, ſhips, herds, flocks, armies, or other aſſemblies, &c.

665. Ideas are alſo either original or actitious.

666. *Original* ideas are thoſe that repeat, without any intentional variation, the ſenſations they repreſent, and in the ſame connexion, order, and manner; and hence thoſe ſenſations are ſaid to be *remembered* or again brought back to the mind; but the faculty of memory extends much further than to ſenſations,

tions, for we remember notions, judgments, volitions, &c. as well as ſenſations by means of their ſigns.

667. *Factitious ideas*, commonly called ideas of imagination, are thoſe which we *form* by addition or ſubtraction of things, whoſe parts have been previouſly perceived by ſenſe, but whoſe aggregate had never been perceived. So we may form an idea of a golden mountain, though we never ſaw ſuch a mountain; but we have had ſenſations both of gold and of elevations; or we may form an idea of a man far above or below the uſual ſtature, or of a centaur, &c.:—or which we *acquire* by ſigns, ſuch as words or writing; thus we acquire ideas of perſons or events, countries, cities, palaces, &c. which we have never ſeen, either by the relation of others or by reading.*

668. Hence factitious ideas are either *native*, ariſing in the mind in conſequence of an act of the will, or adventitious, being acquired by communication.

669. *Original* ideas are commonly at firſt much ſtronger than the factitious, but they gradually fade away, and in ſome minds ſooner than in others; their diſappearance is

* See Edgeworth on Education, Vol. iii. p. 129. in 8vo.

at

at firſt partial but at laſt total. They are known to be original, either by their ſuperior vivacity or by their aſſociation and connexion with the chain of preceding, concomitant, or ſubſequent circumſtances. This is the ſtrongeſt proof. Thus I remember being at ſchool, and know this idea to be original and not factitious, from its unconſtrained connexion with the idea of the place where I lived, the books I read, the maſter who taught me, and many of my ſchool companions, &c. When original ideas have faded away to a certain degree, and are weakly aſſociated with the ideas of other circumſtances, they are not eaſily or perhaps at all diſtinguiſhable from factitious ideas.

670. *Factitious* ideas may alſo be remembered; but as the ſenſations they repreſent form no link in the ſeries of real things witneſſed by the mind that formed or received them, their origin can ſcarcely be miſtaken.

671. Both original and factitious ideas excite emotions, but the original much more ſtrongly. Thus the memory of a tragic event which I have ſeen, inſpires me with more terror or compaſſion than could be excited by the bare imagination of ſuch a ſcene: fictions

which we ourſelves form, affect us leſs than thoſe which we learn from others, becauſe we are *conſcious* of the falſehood of the former; whereas, thoſe communicated to us by others, are only *believed* to be falſe.

672. Factitious ideas are ſo much the more vigorous, and the emotions they occaſion, ſo much the livelier, as they are more completely accompanied with ſenſible circumſtances, ſuited to them, and the previous diſpoſition of our mind to analogous feelings. Thus theatrical repreſentations make the ſtrongeſt impreſſions when not only the voice and geſture, but alſo the age, garb, language, are ſuch as ſuit our conceptions of the original perſonages. Hence alſo the effect of theons, martial pictures exhibited after martial muſick.*

673. Even ſigns, long aſſociated with ideas or notions, ſuch as the words, whether written or ſpoken, of a language perfectly familiar to us, affect us in the ſame manner as the ideas they denote, though unaccompanied with any idea.†

* 3 Edgeworth, 162.

† See my treatiſe on Logick, Vol. I. N° 34.

SECT.

SECT. II.

OF THE PROPERTIES OF SENSATIONS, IDEAS, AND NOTIONS.

674. Theſe are, truth or falſehood, clearneſs or obſcurity, diſtinctneſs or indiſtinction or confuſion, adequacy or inadequacy.

¶ I. *Of Senſations, their Truth.*

675. If a ſenſation be deemed true, when it is ſuch as it ſhould be, according to the laws of nature in the given circumſtances, then all ſenſations are true, even thoſe of dreamers and madmen; but if we conſider ſuch ſenſations only as true as are conformable to the uſual regular courſe of nature, then thoſe only can be ſo regarded as are conſiſtent therewith. But among theſe a further diſtinction muſt be taken; for ſome of them terminate in themſelves, and others by an early natural aſſociation bear a reference to other ſenſations. To the truth of the former ſort nothing more is requiſite than conformity with the uſual courſe of nature; thus, in the

healthy ſtate of the organs, all odours, taſtes, and tangible ſenſations are *true*; but thoſe of the latter ſort, being ſigns of other ſenſations, muſt not only agree with the uſual regular courſe of nature in the given circumſtances, but alſo denote, with more or leſs exactneſs, the ſtate of the ſenſations of which they are the ſigns; for if they denote this ſtate, otherwiſe than the primitive aſſociation had conſtantly ſuggeſted, they muſt in that reſpect be regarded as falſe.

676. Thus viſual ſenſations being ſigns of the figure, diſtance, magnitude, and motion of tangible ſenſations, the viſual ſenſation of an oar obliquely immerſed in water, denoting its tangible ſenſation to be crooked, when in reality it is ſtraight, is falſe, though conformable to the laws of optics; for it tacitly ſuggeſts a falſehood, as plainly as words can expreſsly do, and is not grounded on a conſtant, uſual, and univerſal aſſociation.

677. But a viſual ſenſation ſuggeſting the ſhape or magnitude of a tactile ſenſation, ſo as at the ſame time to denote its diſtance, agreeably to their original and uſual aſſociation, as well as to the laws of optics, cannot be deemed

deemed falſe, though that ſhape or magnitude be not as exactly ſuggeſted as it might be at another diſtance.

678. Hence the viſion, at a conſiderable diſtance, of a ſquare tower, without marking the angles, and conſequently apparently round, is not falſe, for it is ſuch as it ſhould be, not only according to the laws of optics, but alſo to the original aſſociation of viſual and tactile ſenſations at ſuch diſtances, which diſtance the confuſed viſual perception thus ſuggeſts.

679. And for the ſame reaſon the viſual indications of the magnitudes of the ſun and moon are not falſe, though inexact; but a judgment that their real and apparent magnitudes would be the ſame at a nearer diſtance would be inconſiſtent with the reſults of experienced aſſociations, and therefore falſe.

680. A ſenſation common to different aggregates cannot be deemed falſe, merely becauſe it does not ſuggeſt to which of them it belongs, though a judgment founded ſolely upon it would certainly be raſh, and probably falſe. Thus the ſenſation of a brilliant yellow colour being equally contained in the

aggregate called *gold*, in that called pinchbeck, and in that called mica, it cannot be deemed falſe, for not deciding to which of them it belongs.

681. Colorific ſenſations varying with the diſtance of the tangible objects to which they belong, though conformable to the laws of optics, may be deemed falſe, as the colours of tangible objects are uſually permanent.

682. Senſations ſuggeſting tangible objects to exiſt where they do not exiſt, though agreeable to the laws of optics or acouſtics, are falſe and deluſive. So thoſe preſented by a mirror ſuggeſting tangible objects behind it, are falſe. And the ſame may be ſaid of various other optical appearances.

2. *Clearneſs.*

683. *Clearneſs*, is a mode of perception literally applicable only to the ſenſations of light and colours.

684. *Light* is ſaid to be clear, when it is ſufficient for an accurate perception of colours. And colours are ſaid to be clearly perceived when their various ſhades are perceived.

685.

685. Light is ſuſceptible of various degrees of clearneſs. Thus the light of the meridian ſun is generally clearer than that perceived at its riſe or ſetting, and both are clearer than that of the moon. And hence a clear light is juſtly called a *ſtrong* light, and light of inferior degrees of clearneſs is called a *weak* light. But the difference of the degrees of clearneſs can only be perceived by compariſon. In no caſe can light be properly ſaid to be *obſcure*, for that is a contradiction; what is ſo called is properly a *weak* light.

686. Colours participate of the clearneſs of the light in which they are ſeen. But as *black* is an obſcure colour, in whatever light it is ſeen, with which they are frequently mixed, or to which the ſhades or mixtures of primitive colours frequently approach, they may in ſuch caſes be obſcure, independently of the weakneſs of the light in which they are ſeen. Colours ſeen by a weak light ſhould rather be ſaid to be weakly perceived, than obſcurely ſeen or perceived.

687. Colours of diſtant objects are more or leſs clearly perceived, in proportion to the proximity, diſtance, ſize, or minuteneſs of thoſe

objects. But when brilliant they may, though extremely diſtant or minute, be clearly perceived.

688. Sounds are alſo ſaid to be clear when free from ſhrilneſs, harſhneſs, and hoarſeneſs.

689. Clearneſs is ſeldom attributed to odours, taſtes, or tactile ſenſations, though their exiſtence be certain. All ſenſations may be called obſcure when attention to them is prevented by that given to ſtronger ſenſations, or even to ideas.

3. *Diſtinctneſs.*

690. Senſations are *diſtinct* when their gradations and peculiar characters are perceived and noticed: thus colours are diſtinctly perceived, when not only their different ſenſations, as red, green, &c. but alſo the various ſhades of the ſame colour, are noticed, or the different degrees of ſweetneſs of ſugar, honey, manna, &c. The ſenſations of figures, whether viſible or tangible, are diſtinct, when the number of their ſides, angles, and curvatures, is known by ſimultaneous perceptions; for if they be ſo numerous, that their number cannot be diſtinguiſhed at once, the ſenſation of the

the figure is indiſtinct, and the knowledge acquired by ſucceſſive numeration ſhould rather be called a notion. Such is the knowledge we may have of a chiliagon, which cannot be diſtinguiſhed by mere ſight from a figure of 900 ſides.

691. Senſations are capable of various degrees of diſtinction. In the leaſt and loweſt degree are thoſe which exhibit only the moſt general of the properties of which an aggregate conſiſts; thoſe that preſent the leſs general are more diſtinct, and thoſe that preſent the individual properties are the moſt exact, preciſe, and diſtinct. Thus if I ſee upon land a white colour at a diſtance, I immediately aſſociate it with extenſion, and call it a white object; but whether it be a white ſtone or a white animal I cannot diſtinguiſh, as whiteneſs is common to both; and in this reſpect the ſenſation is indiſtinct, vague, and indeterminate, though ſufficiently diſtinct from red, green, or other coloured objects. On approaching nearer, I perceive the diſtinguiſhing characters of an animal, but not thoſe of the ſpecies of animal; on approaching ſtill nearer, I perceive it to be a ſheep, conſequently my

my ſenſation is more diſtinct; but it is capable of becoming ſtill more diſtinct and determinate, for a ſhepherd might point out the peculiar characters of that particular ſheep.

692. An aſſemblage of ſenſations is ſaid to be confuſed, when they are irregularly intermixed or jumbled together, as the colours on a painter's board, and various taſtes and ſmells.

693. Thus a ſenſation is clear when we have no doubt of its perception, but it is diſtinct and determinate only when we notice its diſcriminating characters. See ante, N° 385.

¶ II. *Of Ideas; and, firſt, of their Truth.*

694. As all ideas are copies of ſenſations, their *truth* cannot conſiſt in that ſingle character, otherwiſe all would be true, which is abſurd; for if ſo, the factitious anthropomorphic idea of God ſhould be deemed true: a true idea then is that which repreſents exactly that peculiar object whoſe name it bears, and which is conſequently ſuppoſed to be that whoſe repreſentation is intended. Hence a picture would be called falſe if it bore the name

ideas being copies of ſuch ſenſations, or aggregates, muſt be poſitive, and none can be negative. The idea of a ſhadow is not a negative idea, but rather the idea of a circumſcribing illumined ſpace, ſuggeſting the diſtance of its parts from each other without any perception of an intervening colour. Perfect blackneſs cannot be otherwiſe perceived. Darkneſs cannot properly be ſaid to be perceived; it is rather a want of the perception of light, whoſe preſence is denied, becauſe it is not perceived. Hence ſuch words denoting negative judgments, ſignify notions rather than ideas.

6. *Poſſible.*

700. Neither can we have any idea but of things poſſible, for as things impoſſible exclude each other, a ſenſation of them cannot be had; for inſtance of a ſquare circle, or of a being that is both a man and a horſe. It has been ſaid, that ſince we deny the poſſibility of ſuch things, we muſt conceive them, otherwiſe we ſhould deny what we are ignorant of; but this is a miſtake; we indeed conceive or have an idea of each thing ſeparately, for ſo conſidered they are poſſible, but

we

we deny their union, becauſe we diſcern their incompatibility. Yet the mind may perceive at the ſame time ſenſations repugnant to each other, as already ſaid, N° 389, when they affect different combinations of that aggregate of ſenſations which conſtitutes the human body.

¶ III. *Notions.*

Truth.

701. A *true* notion, is that which reaſon, moral inſtinct, and the received ſignification of the word to which it is annexed, demands: this laſt ſtandard however is not always juſt; it is ſo only when not contrary to the two firſt. Thus the true notion of *religion* being, that it is a ſyſtem of true tenets, and of practices moſt agreeable to the Supreme Being, the notion annexed to that word by heathens was falſe, as they ſuppoſed it to conſiſt merely in ſacrifices, feſtivals, and ceremonies, and admitted a plurality of objects of worſhip.

Clearneſs.

702. Notions are *clear* when a true and intelligible definition of them can be aſſigned, even though in many caſes incomplete: thus

we

we may have a clear notion of the Supreme Being, though we are ignorant of his eſſence and of many of his properties and attributes; ſuch alſo is our notion of the human ſoul, though we are unacquainted with its eſſence, and many of its properties: ſo alſo we may have a clear notion of a triangle, without knowing whether it be an equilateral, an iſoſceles, or a ſcalenum, for we can define it: ſo alſo we may have a clear notion of an animal or of a metal without diſcriminating any: ſo alſo we may clearly underſtand what is meant by complex notions, ſuch as *government*, *religion*, &c. without thinking of any in particular.

Diſtinctneſs.

703. A diſtinct notion differs from a clear notion only in being more determinate and preciſe, marking the peculiar circumſtances by which a notion differs from other notions that border upon it; as that of avarice from that of frugality, of liberality from prodigality, religion from ſuperſtition, liberty from licentiouſneſs, murder from manſlaughter, &c.: we may have a diſtinct notion of a large number,

ber, as 100,000, though not a diſtinct idea even of 20, but only know it by numeration, becauſe we have an idea of the decimal places which indicate thoſe high numbers.

Adequacy.

704. An *adequate* notion is ſuch a knowledge of a ſubject as enables us to judge of its truth or falſehood, of its propriety or impropriety. Thus our notion of human juſtice is ſufficiently clear to enable us to decide how far an action, whoſe circumſtances are known agrees or diſagrees with it. But our knowledge of a fact may be ſo imperfect, that its known proofs or circumſtances may be inadequate to the eſtabliſhment of any certain deciſion reſpecting it.

But our notion of Divine Providence is not ſufficient to enable us to diſcern its wiſdom and juſtice in many caſes which it either ordains or permits; as the grounds on which it acts, and the views which it propoſes, (frequently very diſtant, but which the Divine power can realize,) neceſſarily unknown to us; though we are certain, *a priori*, of the ſuitableneſs of all ſuch events to the occaſion, and

and of their exact conformity to the rules of juſtice.

Abſolute, Relative, Poſitive, Negative.

705. *Abſolute* notions are thoſe which we have of things *directly* underſtood, without any reference to any thing elſe: ſuch as our notions of intelligence and knowledge, love and hatred, ſuch as they exiſt among men.

706. *Relative* notions are ſuch as we have of things not directly, but by their relation to ſomething elſe which is directly known: thus the above-mentioned properties, when aſcribed to the Divinity, are underſtood only by their analogy to the ſenſe they bear when aſcribed to human beings; which analogy conſiſts in the general ſimilitude of their effects, and not in their modes of exiſtence.

707. All abſolute notions are *poſitive*, as they concern things either exiſting, or at leaſt poſſible.

708. But of relative notions, ſome are *negative*, as they include a denial of ſomething poſitive; ſuch as *darkneſs*, the denial or abſence of light; *ignorance*, the denial of know-

 ledge;

ledge; *immenſity*, a magnitude to which bounds are denied, &c. In the two laſt caſes a ſubject is referred to, to which ſomething is denied; as knowledge, to a being capable of poſſeſſing it, bounds to magnitude, and many others; theſe are called *privative* notions. The word *nothing* denotes denial of all beings; but as two negatives are equivalent to an affirmative, when we ſay *nothing is impoſſible to God*, the meaning is *all things are poſſible to God*. So if we ſay *darkneſs is inconvenient*, this is equivalent to ſay *light is convenient*. But ſuch converſions are not abſolutely neceſſary; for ſuch privations may be conſidered as ſtates, and ſuch ſtates may be conſidered as inconvenient, &c.

Impoſſible.

709. We have a notion of impoſſibility in this ſenſe, that we know the ſignification of that word, but we cannot have a notion of things *known* to be impoſſible, for ſuch things are unintelligible, involving a contradiction; yet we may underſtand the ſeparate words or ſeparate branches of a propoſition that convey

that

that impoſſible ſenſe; that is, the ſubject and attribute; becauſe ſuch a propoſition either affirms the union of things that exclude or contradict each other, or the diſunion of things that cannot be ſeparated; as their ſeparation would involve a contradiction, or at leaſt be unintelligible. But this impoſſibility is diſcerned, otherwiſe it could not be affirmed, and in this ſenſe alſo we may be ſaid to have a notion of it.

710. One may alſo have a notion of an object *really* impoſſible, when its impoſſibility is not diſcerned, and conſequently not apparent to the perſon who entertains it. This often happens in complex and complicative notions, when one of the notions that enters into the complexity is falſe; as the notion of a *cruel God*, entertained by the Manicheans; of a *corporeal God*, held by the Anthropomorphites: the notion of God entertained by both was falſe, and hence they did not diſcern the incompatibility of thoſe attributes. Such alſo is the notion of extended ſolid matter, held by the hyoliſts; and of a material ſoul, held by the materialiſts; to ſay nothing of other

falſe tenets, ſuppoſed to be grounded on revelation.

Comprehenſive.

711. A comprehenſive notion is a knowledge of all the properties of an object.

CHAPTER IV.

SECT. I.

ABSTRACTION.

712. Metaphyſical abſtraction, is the mental ſeparation from each other, of things which cannot exiſt but in a ſtate of union; or of thoſe ſtates, modes, qualities, or properties, which, being equally obſervable in many diſtinct or different objects, and therefore ſaid to be common to them, from all thoſe objects in which they are obſerved, or to which they are aſcribed; or of objects capable of many varieties, from all of thoſe varieties, retaining only what is common to them all.

713. Thus, when we ſee an object extended, coloured, and moved, it is plain that neither

neither colour nor motion can exiſt ſeparately from extenſion. And, ſecondly, if two or more objects are perceived to reſemble each other in colour, magnitude, or other properties, which are therefore ſaid to be common to them; or, in other words, of which they are ſaid to participate, it is evident that none of theſe properties can exiſt ſeparately from all the objects to which they are common.

714. Thirdly, though extenſion be ſuſceptible of indefinite variety, both in length, depth, and breadth, yet it cannot exiſt but under ſome or other of thoſe modifications, and not independently of all of them. The ſame may be ſaid of figure, colour, and motion, as their reſpective varieties.

715. Now as the exiſtence of all ſenſible objects conſiſts in their being perceived by ſenſe, it is plain that ſuch of them as cannot exiſt ſeparately from each other, cannot be perceived by ſenſe ſeparately from each other; or, in other words, do not admit of ſeparate ſenſations; conſequently, ſince ideas are copies of ſenſations, neither can ſeparate, that is abſtract, ideas of ſuch bodies exiſt.

716. Therefore, we can have no idea of

colour abſtracted from extenſion, on which it ſeems to be ſpread; nor of a colour or magnitude, &c. common to different objects, abſtracted from all thoſe objects; nor of colour, figure, or magnitude in general, abſtracted from and excluding all their reſpective varieties: thus we cannot have an idea of a colour that is neither red, white, yellow, &c. or ſome ſhade or mixture of theſe; nor of a triangle, which has no preciſe proportion of ſides or angles, being neither right-angled, iſoſceles, or ſcalenum.

717. Yet an idea may be *indeterminate*, becauſe the idea it copies may be indeterminate, ſee N° 691. and 697. Neither the idea nor the ſenſation are abſtract; they are imperfect and defective, but not excluſive.

718. Thus abſtract ideas are impoſſible in every caſe.

719. But though we cannot have abſtract ideas, yet we may have *abſtract notions*, becauſe we may attend to ſome one quality, property, modification, or attribute, of an object, without attending to any other; and notions are not repreſentations, but mere definitions or indications of the objects of our conſideration.

conſideration. Thus, though colour cannot exiſt or be repreſented ſeparately from extenſion, yet it can be conſidered without any attention to extenſion: thus the properties of different colours may be explained without any attention to the extenſion on which they appear; and in the ſame manner we may conſider the properties, qualities, modes, or attributes, common to various objects, without any attention to the other modes or properties, &c. of thoſe objects, or to any of the various objects to which thoſe modes, properties, qualities, &c. belong: thus, for inſtance, we may meaſure the length of a road, without attending to its breadth; or the dimenſions of a field, without attending to its ſoil, whether graſſy, rocky, moor, or moraſs, though we cannot avoid perceiving theſe peculiar circumſtances: thus abſtract notions ſerve every purpoſe for which abſtract ideas were thought neceſſary.

SECT. II.

GENERALIZATION.

To generalize an object is to make it either the repreſentative or the ſign of many particular objects.

720. Thus, as an inſtance of generalization by repreſentation, a line, though but an inch long, may repreſent lines of any length, as it does when a method is given of cutting it into two equal parts; for whatever is demonſtrated concerning it is equally true of all other lines; or, in other words, of lines in general, let their length be what it may, as its length is no way concerned in the demonſtration. So a particular triangle, for inſtance an iſoſceles, may repreſent all ſorts of triangles, as to thoſe properties that are common to all of them; thus it may ſerve for the demonſtration, that the three angles of all right-lined triangles are equal to two right angles, becauſe neither the length of the ſides, nor the ſpecies of angles they form, are at all concerned in the demonſtration; and thus the picture of an animal repreſents, as to their ſpecific appearance, all animals of the ſame ſpecies.

721. So ideas may be reckoned general, when they are indeterminate; thus a groan, or laughter, or a word uttered, will ſuggeſt the idea of a man; which idea will not, in

many caſes, repreſent excluſively any determinate individual, but any at pleaſure.

722. It has been objected, "that if in the "triangle we have in view, we do not diſ-"tinguiſh what is common to all triangles "from what is not, it would be impoſſible to "diſcern whether ſomething that is not com-"mon be concerned in the demonſtration." Which is plainly a miſtake; one need know no more of triangles than that they are bounded by three right lines: this being their definition, muſt be applicable to all of them; one need not notice the diſtinctions of triangles, as the demonſtration evidently requires none of them in particular, and conſequently extends to all of them, ſince they are all equally triangles.

723. Thus a demonſtration always reſts on a general truth, and not on a mere induction of particulars; for a truth is general when it extends to numerous other caſes beſides that from which it was deduced; and it always does ſo, when the eſſential circumſtances being the ſame, the peculiarities attending each particular caſe do not affect it.

724. But the objects moſt capable of univerſal

verſal generalization are *words*; and as theſe do not repreſent any object, but are conſtituted its ſigns by thoſe who uſe them, they are ſaid to *ſignify* it.

725. Words, when uſed as *ſubſtantives*, can denote all claſſes of beings: thus, the word *animal* ſignifies all ſpecies of animals, whether men or brutes, and alſo the individuals comprehended under all thoſe ſpecies, and conſequently the ſubordinate genera, as quadrupeds, birds, fiſh, and inſects; ſo alſo they may denote claſſes of inanimate objects, that in many reſpects reſemble each other, as houſes, cities, villages, rivers, mountains, trees, &c.: which words denoting equally and immediately ſuch numerous objects, are therefore called *apellatives*. They may alſo denote the peculiar character or eſſence of various genera or ſpecies, as *animality*, or *human nature*; the *Godhead*, or *divine nature*, &c.: and when uſed as *adjectives*, they may denote generic or ſpecific properties, as *animal* functions, *human* actions, &c.: or general or ſubordinate denominations, as *European*, *German*, *Auſtrian*, *Saxon*, &c.

726. Not only ſingle words, but propoſitions formed of them, become general, when

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no peculiar circumſtance, limitting them to a particular caſe or object, or ariſing from the nature of things, is contained in them; ſee Log. N° 89 and 90, &c. Thus, when it is ſaid, that *whatever has extenſion is diviſible*, this is meant of extenſion in general, of which we have a notion, ſince it means no more than *all extended things*, without particulariſing either wood, ſtone, metal, &c. or admitting any exception.

727. In the ſame manner written characters, or arithmetical and algebraic ſigns, denote general words, not only in one language, but different yet equivalent words in different languages; thus 5 denotes *five* in Engliſh, *cinque* in French, *quinque* in Latin, *pente* in Greek, &c. Of this ſort alſo are the Chineſe characters, to which different yet equivalent words are ſaid to be annexed in the Chineſe, Japaneſe, Tonquineſe, and Siameſe languages.

728. All ſciences, as far as they are univerſal and demonſtrable by human reaſon, will we found converſant about *ſigns*, whether vocal or technical, as their immediate objects; though theſe, in their application, are referred to *things*; for, as the mind is better acquainted

quainted with ſome ſorts of objects, which are earlier ſuggeſted to it, ſtrike it more ſenſibly, or are more eaſily comprehended than others, it is naturally led to ſubſtitute theſe objects, for ſuch as are more ſubtle, fleeting, or difficult to conceive; now it is certain we imagine before we reflect, and we perceive by ſenſe, before we imagine; and of all our ſenſes, the ſight is the moſt clear, diſtinct, various, agreeable, and comprehenſive; hence it is natural to aſſiſt the intellect by the imagination, the imagination by ſenſe, and the other ſenſes by ſight; hence figures, metaphors, and types; we illuſtrate ſpiritual things by corporeal, we ſubſtitute ſounds for thoughts, aud written characters for ſounds.*

SECT. III.

OF CONSIOUSNESS AND ATTENTION.

729. Every perception and mental operation neceſſarily implies a percipient and act-

* Berkeley's Min. Philoſ. Dialog. 7th. ſec. 16. on the ſubjects of abſtraction and generalization. See 2d Campbell Phil. of Rheth. 92, &c. and Stewart on the Mind, 188, &c.

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ing ſubſtance, to which its perceptions or actions are known. Now this notice of a perception or action, by the ſubſtance that perceives or acts, is what is called *conſciouſneſs*.

730. A perception or action may then be conſidered, either with regard to the thing perceived or acted, or elſe with regard to the ſubſtance itſelf that perceives or acts, and which being a living ſubſtanc neceſſarily knows that it perceives while it perceives, and acts while it acts. This double conception is what, in the ſchools, is called objective and ſubjective: thus, a medal or coin may be conſidered as to what it repreſents, or as to the particular metal it conſiſts of.

731. Conſciouſneſs, then, is not a perception different from the perceptions of which the mind is conſcious, as ſome have erroneouſly thought, but identically the ſame.

732. As ſenſations may be impreſſed with different degrees of intenſity, (N° 388) and ideas with different degrees of vivacity, (N° 669,) ſo alſo may emotions and all mental operations; ſo their conſciouſneſs, or rather that which the mind has of them, muſt be ſuſceptible of different correſponding degrees

of

of vigour; it may even be ſo feeble as to be nearly evaneſcent; thus, the conſciouſneſs of our cloſing our eyes in winking is ſo feeble, that without reflexion we ſhould ſcarcely believe, that while it laſts we are in the dark, and even for ſome ſeconds in a minute; and ſuch is the conſciouſneſs of our ideas during a ſound ſleep.

733. *Attention* is a lively continued notice taken of the objects of our ſenſations, ideas, notions, emotions, or of any mental operations or ſeries of objects. Thus, if I take a general undiſtinguiſhing view of a flower garden, the notice I take of each flower (and ſome I muſt take, if I ſee it) is ſo ſlight and ſuperficial, that if I be aſked a moment after, whether I ſaw a tulip, I may not be able to remember whether I did or not: but if I ſingle out any flower in particular, and view it for a few ſeconds without interruption, or thinking of any thing elſe, I am then ſaid to *attend* to it.

734. The notice taken of the objects of ideas, notions, &c. is alſo called *conſideration*, or reflexion; and if continued and uninterrupted, an *attentive conſideration*.

735. Attention to numerous or extenſive viſual ſenſations or ideas, is properly called *contemplation*;

contemplation; ſuch as a general but uninterrupted view of a flower garden, of the ſea, or of the heavens: ſo we may be ſaid to contemplate the cauſes of the riſe or fall of empires, &c.

736. But a continued perception is not always neceſſary to attention: a ſudden lively ſenſation, though inſtantaneous, and particularly if accompanied with pleaſure, pain, or ſurpriſe, or other ſtrong emotion, will attract all the notice the ſoul is capable of: for inſtance, a ſudden flaſh of lightning; a wound or hurt attended with much pain; or exquiſitely agreeable or odious taſtes, ſounds, or ſmells; violent emotions of joy, grief, anger, fear, &c. or deep remorſe.

737. Attention is generally voluntary, and conſequently requires an act of the will; but it ſometimes is involuntary and forced; ſuch is that extorted by exquiſite pleaſure or pain, or ſudden lively ſenſations.

738. It is alſo capable of various degrees, from the ſlighteſt to the moſt intenſe, in which the faculties of the mind are wholly abſorbed; ſuch was that of Archimedes, who was ſo attentive to a mathematical ſpeculation,

and

and inattentive to every thing elſe, as not to heed the buſtle of a town taken by aſſault, nor even the burſting open of his door by a ſavage ſoldier; not but he muſt have perceived it, but his perception was ſo feeble as to excite no notice.

739. Attention to one object diminiſhes, in proportion to its degree, attention to every other object, and hence ſtrong attention to two objects is more difficult than to one; the difficulty increaſes with the number of objects, and thus it is always ſo much the more feeble as it is more divided; yet if the objects be very ſimple, ſuch as the ſounds and characters that form words or muſical notes, by long and early habit they become ſo familiar, that the ſlighteſt attention to them is ſufficient to ſuggeſt their prototypes with the greateſt facility and rapidity.

740. Attention to notions is more difficult than attention to ideas, and attention to ideas is more difficult than that given to ſenſations, or emotions.

741. Attention to ſenſations is ſo much the ſtronger, as they are more lively and impreſſive: thus a ſtrong ſenſation or lively idea diminiſhes attention to the more feeble; but ideas

ideas may be ſo lively, as to diminiſh attention even to ſenſations, and ſo may alſo emotions and paſſions, as thoſe of ſhame, anger, love, pride, &c.

742. The power of beſtowing attention is very different in different minds, and to all it is much eaſier to give it to ſome objects than to others; it may be excited in almoſt any minds by ſtrong motives, or motives that, from a peculiarity of conſtitution, appear to them particularly gratifying or alluring, as a paſſion for particular ſtudies.

743. Attention to ſuch facts as nature preſents to us, without our aſſiſtance, is called *obſervation*; but the facts which nature preſents to us, in ſituations which we ourſelves have prepared, are called *experiments:* cloſe attention to paſt facts, their expected conſequences, or to deſigns expected to be effected, is called *meditation:* that paid to our paſt ſenſations, or to *our own* ideas, notions, or mental operations, is called *reflexion.*

SECT. IV.

OF THE ASSOCIATION AND CONNEXION OF IDEAS, NOTIONS, AND MEMORY.

744. Ideas, notions, emotions, and paſſions, are partly aſſociated and partly connected with each other; I call them *aſſociated* when they accompany or border on each other, and *connected* when they frequently ſuggeſt or follow each other.

745. In nature, ſenſations of any given kind are ſcarce ever ſingle; they are uſually accompanied or immediately preceded or followed by various ſenſations, which are thence called their *circumſtances*. Of theſe, ſome are *neceſſary*, as thoſe of time and place; and ſome are *accidental*, as the different events that accompanied or immediately preceded or followed: thus the death of Cæſar happened on the ides of March, and in the ſenate houſe, and was immediately preceded and followed by other events, of which hiſtorians give a minute account.

746. Hence ideas, being copies of ſenſations, are aſſociated with the ſame train of ideal circumſtances.

747. So alſo, as a ſenſation is often followed by another of which the preceding is deemed to be the *cauſe*, in the ſame manner the idea of the preceding ſenſation will immediately be followed by that of the effect. But the reverſe does not always happen, as the ſame effect may be produced by different cauſes; thus, as death may proceed from various cauſes, none of them in particular is ſuggeſted by its idea, unleſs the cauſe of it was alſo perceived by ſenſe.

748. Again, as numerous ſenſations are more eaſily obſerved, when preſented in a certain *order*, than when they are perceived in a confuſed irregular manner, in the ſame manner their ideas preſent themſelves in the ſame order, and difficultly in any other.

749. Further, as an artificial aſſociation is frequently formed betwixt two ſenſible objects, ſo that the perception of the one ſuggeſts that of the other, and thus becomes its *ſign*, the ſame aſſociation is formed betwixt the idea of the *ſign*, and that of the thing

 ſignified;

ſignified; but the reverſe does not eaſily take place; for, as the ſign was inſtituted for the ſake of ſuggeſting the thing ſignified, not the reverſe, more attention was originally paid to it in that relation, but much leſs in the converſe relation; thus a word, or even its idea, more eaſily ſuggeſts the object it denotes, or its idea, than the object or its idea ſuggeſts the word proper to denote that object; and hence we oftener forget names than the perſons or things they denote.

750. In the foregoing caſes, the aſſociation of ideas is grounded on the relation of *contiguity*, that is, vicinity in time or place, that of *cauſation*, that of *order*, and that of *ſignification*.

751. In the following inſtances ideas ſeem rather to be connected than aſſociated in the ſtrict ſenſe of the word, and more or leſs effort is neceſſary to form the connexion.

752. And, firſt, as the ſight of different objects does, after ſome attention, occaſion the notice of the properties, qualities, or other points, in which they agree, and of thoſe in which they diſagree, ſo does meditation on their ideas: it is the notice thus taken that leads

leads us to aſſign generic, ſpecific, or general names to various objects, and on it all claſſification is founded. Here then the connexion is founded on the *relation* of ſimilitude; it is this principle alſo that ſuggeſts metaphors and allegories.

753. This ſimilarity is ſometimes very remote, being traced not from any ſenſible appearance of objects, but from analogous effects, ſimilar relations or conſequences: thus a connexion is diſcovered betwixt winter and old age, and betwixt ſpring and youth, betwixt darkneſs and ignorance, betwixt the head of an animal and the governor of a ſociety: the invention of ſuch connexion not being obvious, is called *ingenuity:* it is alſo applicable to the diſcovery of ſome difference betwixt objects that appear exceeding ſimilar.

754. As in nature oppoſite ſenſations of heat and cold, light and darkneſs, &c. conſtantly ſucceed each other, ſo one idea frequently ſuggeſts its oppoſite, and they thus become connected.

755. The relations therefore on which the connexion of ideas is founded, are thoſe of *ſimilarity*, *analogy*, and *oppoſition*.

756. It may alſo be remarked, that ſenſations are often much more ſtrongly aſſociated with ideas, than ideas can be with each other; thus, being on the ſpot on which great events have happened, brings them to our recollection much more powerfully than the mere idea of ſuch places can. Many beautiful inſtances of this kind of connexion occur in Profeſſor Stewart's Philoſophy of the Mind, p. 279.*

757. Upon the experience of a conſtant connexion between certain objects, is founded the expectation that *ſimilar objects, placed in ſimilar circumſtances, will always be attended with ſimilar reſults*; but this principle is ſtrictly applicable only to natural events, which are governed by general laws, and not abſolutely and peremptorily to the actions of free agents; for experience, or rather hiſtory, teaches us, that theſe in ſome, (indeed uncommon inſtances) may be widely different from thoſe which are uſually obſerved to take place in ſimilar caſes: how many ſovereigns have been in circumſtances ſimilar to thoſe in which Diocleſian, Charles the Fifth, and Victor Amadeus, found themſelves; yet how few

* Octavo edit.

like

like them have abdicated their power! And to paſs over numerous other examples of the ſtrict inapplicability of this principle to the inveſtigation of human actions, in which probability alone can be expected, in applying it even to inanimate objects, their ſimilarity to thoſe whoſe effects have been already experienced, and alſo that of their circumſtances, muſt be exactly known, before a well-grounded expectation of ſimilar effects can be rationally entertained.

758. Hence alſo the firmneſs with which notions and opinions received and impreſſed by early education are adhered to; for men having, from their earlieſt infancy, obſerved the ſucceſſion of natural events to have correſponded with the predictions of thoſe by whom they were educated, naturally infer their ſentiments and opinions on other ſubjects to be equally conformable to truth: their attachment to them is ſtill further ſtrengthened by the love and reverence they bear to thoſe from whom they received them.

759. *Memory*, conſidered as a faculty of the mind, is the capacity of recovering, though more or leſs enfeebled, thoſe ſtates by which

it was antecedently modified, or their ſigns, together with an inſtinctive perſuaſion of their preceding exiſtence. The ſtates thus recovered are ſaid to be remembered.

760. I call it a *capacity*, becauſe it is not a power *directly* poſſeſſed and exerted by the mind of recovering thoſe ſtates, this being an act of Divine Agency, as much as their original formation; and indeed it were a contradiction that it were otherwiſe, for then we ſhould form the memory of an object, before we remembered it; but having the ſlighteſt hint of the object endeavoured to be remembered, the mind may, by an attentive conſideration, reſearch, and ſcrutiny, of aſſociated circumſtances or connexions, often obtain a more perfect recollection.

761. The perſuaſion of the anterior exiſtence of theſe ſtates is derived from three ſigns, of which the two firſt are inſtinctively known to be ſuch; theſe are, firſt, the vivacity with which theſe ſtates, or their ſigns, reappear: ſecondly, their ready, free, and unconſtrained aſſociation with circumſtances, alſo more vigorouſly impreſſed on the mind, than if they had been barely imagined: thirdly, their

their connexion with conſequences, either neceſſarily or probably reſulting from the pre-exiſtence of thoſe ſtates only, and not from any other cauſe.

762. The ſenſations received from the ſight or hearing, are almoſt the only ſtates of which the ideas can be fully recovered, at leaſt after a long interval. The ideas of taſte or ſmell are little more than inſtantaneous; the ideas of rough and ſmooth are more durable; but the ſenſations of heat or cold, hunger or thirſt, or other ſufferings, cannot be expreſsly recovered; their exiſtence can only be traced from their ſigns, aſſociated circumſtances, and reſulting conſequences: thus alſo the knowledge of pre-exiſting notions is revived, and alſo the diſcernment of relations, judgments, argumentations, volitions, emotions, or paſſions previouſly had.

763. Signs are either natural, as ſighs, groans, &c.; or conventional, as words, whether ſpoken or written; and as theſe are either vocal or viſible, they are moſt eaſily remembered, and through them the things they ſignify.

764. Memory may be conſidered in a double point of view; either as the *capacity* of receiving

ceiving ideas or their ſigns, as already ſaid; or as the *facility* of recollecting them: this however requires the concurrence of the will, at leaſt in common caſes, for certain ſtrong emotions, ſuch as thoſe of grief, anger, and remorſe, may even unwillingly be renewed. Both the capacity of receiving, and the power of recollecting ideas, are poſſeſſed by different minds in degrees aſtoniſhingly different.

765. That memory is ſome how connected with organization, that is a peculiar arrangement of obſcure ſenſations, is certain, from its general decay in old age, and in conſequence of various diſorders by which ſome of thoſe obſcure ſenſations are effaced, but the mode of connexion is perfectly unknown. See 1 Crichton, 358.

766. *Imagination* is the power of compounding, curtailing, and arranging ideas, and of combining the ſigns, whether of ideas or of other mental operations, in an intelligible manner, different from the arrangement, according to which ſenſations, of which they are the copies, were originally impreſſed; and in this it differs from memory.

767. I call it a *power*, becauſe it commonly includes an act of the will; yet its repreſentations

tations ſometimes ariſe involuntarily, by reaſon of ſome early aſſociation, or fear, &c. as when ſpectres or other frightful objects are imagined in the dark.

768. The only ideas which the imagination can command, are thoſe of viſible or audible objects; of other ſenſations it can preſent only their ſigns, which are themſelves viſible or audible; yet theſe ſigns affect us nearly, if not fully, as much, as the ideas of the objects they ſignify could: this muſt be evident to any one who conſiders the words, *fragrant*, *bitter*, *ſweet*, *ſour*, *ſharp*, *blunt*, *hot*, *cold*, *painful*; nay even the ideas of viſible or audible objects are not always neceſſary; their ſigns, when we are long accuſtomed to their connexion with the things ſignified, are fully ſufficient; for, from long experience of their intimate aſſociation, their effects on the imagination become identified; thus money, though merely a *ſign*, is as much coveted as the things it can purchaſe or procure, though it ſuggeſts none of them in particular; Mr. Locke juſtly obſerves, that we frequently think by words and not by ideas.

SECT.

SECT. V.

OF SIMPLE APPREHENSION, CONCEPTION, AND COMPREHENSION.

769. *Simple apprehenſion* was a term anciently uſed by the ſcholaſtics to denote the mere idea of a ſenſible object, without affirming or denying any thing concerning it: it was never applied to fictions of imagination, and but ſeldom to *notions*, which they called *intellections*. See Pourchot, Log. 46.

770. *Conception* anciently, at leaſt for the moſt part, denoted an *idea generalized*; thus the nominaliſts called the idea of a circle, when repreſenting all circles, the conception of a circle, from *cum et capere*; but at preſent it is taken for an *idea*, or *intellection*; thus profeſſor Stewart calls it an exact tranſcript of what we have felt or perceived; Phil. of the Mind, p. 135. And by *intellection* I mean a knowledge of the ſignification of ſigns, ſuch as words or propoſitions, or the meaning of notions; as when I ſay I conceive *God* to be a neceſſary being; I conceive *virtue* to conſiſt in conformity to his will; I conceive the meaning of the word *chilihaædron*,

chiliahædron, but can form no idea of it; that is, I underſtand the meaning of the word *God* to be, that he is a neceſſary being; and that of the word virtue to be conformity to his will. When we ſpeak of conceiving or underſtanding a *general propoſition*, we mean nothing more, (as Mr. Stewart juſtly obſerves, p. 196,) than that we have a conviction that we have it in our power to ſubſtitute, inſtead of the general terms, ſome one of the individual inſtances comprehended under them.

771. To *comprehend*, is frequently taken in the ſame ſenſe as to conceive or underſtand, but, as I think, improperly, except when it is uſed to denote underſtanding a ſeries of propoſitions. In *logic*, it denotes all that a term, particularly a general term, can ſignify: thus the term animal comprehends all animals.* In *metaphyſics*, it denotes the knowledge of all the properties of an object.

* 5 Pourchot, 10. 269. 1 Pourchot, 60. Segui Log. 81, 82. 111.

CHAPTER V.

OF THE SIGNIFICATION OF TERMS DENOTING INTELLECTUAL ABILITIES AND DISABILITIES.

SECT. I.

OF INTELLECTUAL ABILITIES.

772. *Underſtanding* is the general name given to the intelligence of notions, and alſo to the power of receiving ideas, and of imagining, attending, comparing, reflecting, judging, and reaſoning. Senſations alſo, as being the original ſtamina of thought, are referred to this faculty. To *underſtand* a *ſign*, for inſtance a word, is to be aware of, or acquainted with its ſignification. Locke defines the underſtanding to be the faculty of thinking.

773. *Knowledge* of a *ſpeculative object* conſiſts in having ſuch an idea or notion of it as enables us to diſtinguiſh it: knowledge of a *fact* conſiſts in a well-grounded perſuaſion of its exiſtence; thus if I were aſked whether ſuch a city as Rome had exiſted, or whether God exiſts,

exiſts, were it not ridiculous to ſay, I did *not know*, but barely *believed* it? See N° 829.

774. *Thought* denotes every ſtate of the mind referable to the underſtanding, except ſenſations; for ſurely ſeeing, ſmelling, taſteing, &c. are not thoughts, but perceptions.

Perception is a term applicable to all the paſſive ſtates of the mind.

775. *Diſcernment* is the diſcovery of a relation betwixt objects compared with each other.

776. Intellectual abilities relate either to the underſtanding, or to the imagination, or to memory.

777. Thoſe that relate to the underſtanding are genius, penetration, ſolidity, depth, ſagacity, ſubtlety, perſpicuity, and power of illuſtration. All evidently refer to the diſcovery of truth, and ſome to the detection of falſehood.

778. *Genius* denotes an uncommon power of diſcovering abſtruſe and important truths.

779. *Penetration* indicates the power of tracing and diſcriminating the characteriſtic ingredients of complex and complicative notions, and the truth, ſolidity, or defects, of abſtruſe

abſtruſe or plauſible reaſoning: it differs little from ſagacity.

780. A *ſolid underſtanding*, is that which, by cautiouſly diſtinguiſhing certainty from probability, the degrees of probability from each other, and both from uncertainty, mere poſſibility or falſehood, is not eaſily impoſed upon.

781. A *ſolid argument*, is that whoſe truth is not doubtful, or at leaſt not expoſed to any well-grounded doubt.

782. A *ſolid reaſoning* is that which conſiſts of ſolid arguments, duly connected.

783. *Depth of underſtanding* conſiſts in an accurate and diſtinct knowledge of the numerous notions or ideas contained in or connected with any ſubject.

784. *Sagacity* conſiſts in diſcovering cauſes when obſcure, (ſee an inſtance in Grotius's Preface to the Firſt Epiſtle of John, p. 1126;) or diſcovering relations where none re apparent, or the moſt ſuitable interpretations where the ſenſe is ambiguous; by *ſuitable*, I mean conformable to the occaſion and context, and not contradicting any other known truth; from *ſaga*, or *ſagax*, quick ſcenting.

784.

785. *Subtlety* denotes the power of framing obſervations, deducing conſequences or inventing arguments not obvious: it is frequently too refined to be ſolid, or too abſtruſe to be clearly intelligible.

786. *Perſpicuity* conſiſts in explaining and treating any ſubject in terms clearly intelligible, unambiguous, and appropriate.

787. The *talent of illuſtration* is that of rendering a ſubject more diſtinctly intelligible by apt ſimilitudes, or examples.

778. The abilities that relate to the imagination, are genius, talents, wit, acuteneſs, and taſte.

789. *Genius* conſiſts in the enthuſiaſtic power of faſcinating the imagination, by ſublime or beautiful imagery, and exciting the ſtrongeſt emotions: its moſt powerful effects are produced by the union of poetry and muſic.*

790. *Talents* for the fine arts conſiſt in powers of the ſame nature, but poſſeſſed in a more temperate and inferior degree.

791. *Wit* conſiſts in diſcovering unex-

* 4 Voltaire, Dict. Philo. 22.

pected relations of ſimilitude betwixt objects obviouſly diſſimilar; or of diſſimilitude betwixt objects apparently ſimilar; or of contrariety and oppoſition, where none could well be ſuſpected.

792. *Acuteneſs* conſiſts in diſcovering differences betwixt notions apparently ſimilar, or betwixt the ſignification of words apparently ſynonimous.

793. *Taſte*, when juſt, conſiſts in perceiving, with a proportionate degree of pleaſure, the beauties of a compoſition, and its deformities with a proportional degree of diſguſt: a *refined taſte*, is that which perceives the minuteſt degrees of either: a *depraved taſte*, is that which receives pleaſure from what ſhould excite diſguſt, and diſguſt from what ſhould give pleaſure: a juſt taſte is commonly formed by compariſon and reflection.

794. *Ingenuity* denotes the poſſeſſion of ſome or other of thoſe abilities in a remarkable degree. It is evident that all are ſuſceptible of different degrees.

The Abilities of the Faculty of Memory.

795. They may be reduced to three; the facility of acquiring and committing to it the objects

objects ſought to be remembered, the power of retaining them for a length of time, and the readineſs of recollecting them. All ſuſceptible of different degrees.

SECT. II.

OF INTELLECTUAL DISABILITIES.

796. Intellectual diſabilities ariſe, either from a total or partial privation of the common intellectual powers, or from a total or partial perverſion of ſome or all of them, and ſometimes even of the pathetic emotions.

797. Hence they may be reduced to two claſſes, thoſe that ariſe from privation, and thoſe that conſiſt in perverſion.

798. Thoſe that ariſe from privation, are ideocy, ſtupidity, an uncommon want of memory, and incapacity of attention and of recollection.

799. *Ideocy* conſiſts in the incapacity of diſtinguiſhing moral good from evil, comparing, diſcerning, or abſtracting, when at the

period of life in which thoſe faculties ſhould exiſt.

800. *Stupidity* conſiſts in a difficulty of learning the ſignification of ſigns, or of exerting any of the above-mentioned powers; but it is ſeldom total: it may relate to one claſs of objects and not to others; it may relate to ſpeculative objects but not to the common tranſactions of life, and ſocial intercourſe; to one claſs of ſpeculative objects and not to other branches. *Dulneſs* denotes a leſſer degree of ſtupidity.

801. *Incapacity of attention* may alſo relate only to certain objects: defective memory and recollection, if total, amount to ideocy; but theſe defects are ſeldom ſo remarkable; the diminution of both theſe powers commonly accompany advanced age.

802. And in general, we may infer a weakneſs of underſtanding in thoſe in whom, after due examination, the ſtrongeſt proofs produce no conviction.

803. The diſabilities ariſing from the perverſion of the intellectual powers are numerous; I mean not to comprehend that incoherence

herence and confuſion that conſtitute the delirium of a fever, nor thoſe that ariſe from a perverſe will, nor conſequently the criminal tranſgreſſions of the laws of God or conſcience, but merely thoſe that ariſe from diſordered intellectual powers: thoſe principally affected are the imagination and judgment, and ſometimes the paſſions and emotions.

804. The moſt conſiderable perverſion of the imagination conſiſts in miſtaking imaginations for ſenſations, with a full conviction of their reality; or in imagining oneſelf to be what he is not, a king, or emperor, or made of glaſs, &c.; or in miſtaking objects for what they are not, as logs of wood for inſtruments of war, &c. This diſorder conſtitutes madneſs, or phrenſy, if accompanied with audacity, impudence, or violence; or melancholy madneſs, if accompanied with unreaſonable fears, deſpondency, and dejection.

805. There is a ſtate of imagination bordering on inſanity, and ſometimes paſſing into it: this conſiſts in an uncommonly vehement and rapid flow of ideas, catching at the ſlighteſt or moſt diſtant aſſociations: this, while

under the control of the will, and manifeſted only on proper occaſions, conſtitutes an admirable power: yet that it borders on inſanity we have the teſtimony of the poet:

> Great wit and madneſs ſure are near allied,
> And thin partitions do their bounds divide.

And a remarkable inſtance in Taſſo. But when this rapid ſucceſſion of ideas is ungovernable by the will, when the ideas themſelves are incoherent, the tranſitions ſudden and unconnected, ſome degree of inſanity is appar ent.

806. To an imagination more or leſs diſordered, we may attribute religious enthuſiaſm, fanaticiſm, ſuperſtition, and the rejection of reaſon in religious ſubjects.

807. *Religious enthuſiaſm* conſiſts in a ſtrong, but ungrounded, perſuaſion of an uncommon favour and communication with the Deity: it is ſuſceptible of various degrees, but its extreme and moſt violent degree is *fanaticiſm*; which impels the enthuſiaſt to commit the moſt frantic actions, often the moſt atrocious crimes, and embrace the moſt ſenſeleſs, and even immoral tenets.

807.

808. *Superſtition* is a groundleſs perſuaſion of the ſupernatural efficacy of certain practices, words, or actions, and of the connexion of certain natural phænomena with future events, whether moral or political, as omens, augury, &c.

809. The *rejection of reaſon on religions ſubjects.* This ſome enthuſiaſts ſtill contend for, particularly in the interpretation of the ſcriptures, as if we ſhould expect a miraculous aſſiſtance, without any ſolid reaſon for expecting it: whereas, it is reaſon, and reaſon alone, that convinces us of the exiſtence of the Supreme Being, and the truth of the Chriſtian religion; and equally enables us to interpret the books in which it is contained, in all caſes where that knowledge is neceſſary, and to reject any interpretation contrary to it.*

810. The deluſions or miſtakes ariſing from a depraved or miſguided judgment are numerous; but in general we may remark, that where in any important ſubject the ſtrength of conviction exceeds the ſtrength of the

* The rejection of reaſon involves a contradiction, for if we ought to reject it, it is reaſonable that we ſhould reject it; therefore it is not rejected, but ſtill remains.

proofs on which it reſts, there ſome degree of inſanity is apparent.

811. Among many kinds of a perverſe judgment, I ſhall ſelect the following: obſerving, that they amount to inſanity only when accompanied with a full perſuaſion of their truth, or the ſolidity of their foundation; *ungrounded notions, unreaſonable ſuſpicions, overweening preſumption, viſionary ſchemes, erroneous eſtimation of probabilities, blind attachment to prejudices, abſurd rules of interpretation.*

812. *Ungrounded notions.* Theſe regard either the paſt, the preſent, or the future; among thoſe that relate to the paſt, we may reckon the wild ſyſtem of Epicurus, and many other ſuch ſyſtems; among thoſe that relate to the preſent, is the opinion of the tranſmigration of ſouls from one body to another, and that the ancient patriarchs are now living; and as to thoſe relative to futurity, the moſt remarkable is the opinion of the ſpeedy approach of the millenium, and reign of Jeſus Chriſt on earth; and among the ancients, the heathen Romans expected the extinction of Chriſtianity to take place in the year 398; and Chriſtians generally expected the

the end of the world about the year one thouſand.

813. *Unreaſonable ſuſpicions, fears, and ſcruples.* Of ſuch ſuſpicions, Bayle ſays, "among the ſeveral epidemic diſtempers of "the human mind, I know of none more pro- "ductive of bad effects than the practice "of giving reins to ſuſpicion. We eaſily paſs "from one ſuſpicion to another; we ſeldom "ſtop at poſſibility; we run forward to pro- "bability, and to the greateſt probability, and "preſently after, that which paſſed only for "probable, is reported as certain and incon- "teſtible. Great cities are more ſubject to "this diſorder than others." Thus Arminius having undertaken a journey to Italy, it was preſently after believed all over Holland that he had kiſſed the Pope's toe. Such ſuſpicions are generally entertained by tyrants of the beſt and moſt virtuous of their ſubjects: the celebrated J. J. Rouſſeau became a victim to them.

814. *Overweening preſumption.* Such was that of the ſtoicks, who were perſuaded that in wiſdom men could equal the Gods; and that of the Greeks, who ſuppoſed themſelves ſuperior to all

all other nations, whom they deemed by nature deſtined for ſlavery; and that of the modern revolutioniſts, who thought themſelves ſuperior to all other nations in political wiſdom, of which they were completely bereft. They fondly imagined they could render the world happier, by the deſtruction of Chriſtianity, and even that they could effect it.

815. *Viſionary ſchemes*; ſuch as that of converting baſe metals into gold, of finding an univerſal remedy for all diſorders, of diſcovering futurity by the various arts of divination.

816. *Erroneous eſtimation of probabilities.* I allude not merely to the faulty manner of calculating them; ſuch as that of Mr. Hume, in his Eſſay on Miracles; nor to that of a celebrated calculator, in his anſwer to that eſſay; nor to that of Dr. Halley; in eſtimating concordant teſtimony; but principally to an erroneous determination of them, or their unnatural adjudication; for inſtance, the attribution of extraordinary events to cauſes inadequate to their production, as Mr. Gibbon and others have done in accounting for the origin and progreſs of Chriſtianity: or the attribu-

tion

tion of ordinary events to unuſual cauſes or motives, when ordinary cauſes or motives are ſufficient, and no proof but vague ſuſpicions of the exiſtence of any other; for inſtance, the death of princes to poiſon, various diſorders to magick, &c. But in general this erroneous judgment proceeds from our hopes and wiſhes, or from our fears, and not unfrequently from prejudices, party ſpirit, jealouſy, and malignity.

817. *Overweening attachment to prejudices.* This prevents the Mahometans from examining the foundation of their religion, and many infidels from examining the proofs of Chriſtianity: hence alſo the bigotry of the various Chriſtian ſects.

818. *Abſurd rules of interpretation,* ſuch as that the literal ſenſe ſhould always be deemed true, though apparently contrary to reaſon, or contrary to the general tenor of the writing; or taking words in a figurative ſenſe, which may conſiſtently be taken in the literal ſenſe: by *abſurd,* I mean glaring oppoſition to known truths.

819. Locke remarks, that madmen reſemble thoſe that argue juſtly from wrong principles;

ciples; their madneſs is frequently merely partial, being confined to one point; on every other they may reaſon pertinently, and even on that their reaſoning is perfectly juſt.* Of this we have a ſignal inſtance in the perſon of the celebrated Harrington, author of the Oceana, who imagined his animal ſpirits tranſpired from him in the ſhape of birds, flies, or bees; and argued ſo ſtrenuouſly that this was no depraved imagination, that his doctor was put to his ſhifts for an anſwer; yet, on other ſubjects he could diſcourſe as rationally as any man.†

CHAPTER VI.

OF THE ORIGIN AND DEGREES OF HUMAN KNOWLEDGE.

Knowledge being founded on ſenſations, ideas, notions, or their relations, their origin is firſt to be conſidered: the origin of theſe has indeed already been mentioned, but many think them innate, which I ſhall now briefly examine.

* B. ii. C. xi. ſec. 13.

† Britiſh Biography, vol. v. p. 405.

SECT.

SECT. I.

OF INNATE IDEAS.

820. By *innate* is meant, imprinted on our minds and coeval with our exiſtence, or at leaſt with our birth; and by *ideas* I mean the feeble copies of our ſenſations. Now that we are affected with no ſenſations at our birth, but thoſe of feeling, taſte, and ſmell, is very apparent, and of ſuch ſenſations ſcarce any ideas can be retained, even when thoſe ſenſations are received at a maturer age. That the ideas of ſight and hearing are not innate, but derived from our ſenſations, is very evident, ſince thoſe who never received thoſe ſenſations, as thoſe born blind or deaf, have no ideas of colours or ſounds.

SECT. II.

OF INNATE NOTIONS.

821. It is alſo true, as Locke juſtly aſſerts, that we have no innate knowledge of even the ſimpleſt ſpeculative truths; ſuch as *that whatever*

ever is, is; or that *it is impoſſible to be, and not be at the ſame time*; for children never think of ſuch univerſal truths, nor do even the greater part of mankind, of which, nevertheleſs, if ſuch truths were innate, they muſt be conſcious; it is only the *capacity* of diſcovering them that is innate; but the actual knowledge of them is acquired. And ſo far even Leibnitz, though a Platoniſt, agrees with Locke; for he owns, "on peut pas les lire a "livre ouvert, ſans peine et ſans recherche "c'eſt aſſez qu'on puiſſe les decouvrire on "nous, a force d'attention." The mind at firſt acquires ſenſations, then ideas; to theſe names are given, and by degrees general names are underſtood, and at laſt general notions. A child knows not that four and three are equal to ſeven, until he can count ſeven, and thus he acquires the notion of *equality*.

822. In the ſame manner ſimple *ſpeculative* truths are diſcerned, when the terms they conſiſt of are underſtood; ſo all other *ſpeculative* notions are known by reaſoning; none can be deemed innate.

823. Practical moral truths, when *ſimple* are diſcerned when the terms that expreſs them

them are underſtood; not by reaſoning, but inſtinctively by the moral ſenſe, which, like other ſenſes, is by nature implanted in us; but if more *complex*, the aſſiſtance of reaſon is required to diſtinguiſh and develope the various relations which they involve, which muſt be attended to, and evolved, before a caſe can be rendered ſufficiently clear to enable the moral ſenſe to ſuggeſt any deciſion. The duties of gratitude, juſtice, and fidelity to contracts, all men agree in allowing; many indeed fail in performing them, becauſe they are alſo actuated by other inſtincts as forcible as their moral inſtincts, which frequently contradict its dictates; and men have the liberty of chuſing which of thoſe inſtinctive principles they will obey.

824. Locke thinks, that outlaws and robbers practiſe the rules of juſtice to each other merely as rules of convenience, without which their ſociety could not exiſt;* but it is plain to me that he is egregiouſly miſtaken; ſuch abſtract conſiderations ſeldom occur to that

* Locke, B. i. C. iv. ſec. 9.

claſs

claſs of men: the conduct of many of them who have not cheated their aſſociates, even when they could do it with advantage to themſelves, nor betray them even to ſave their lives, evidently proves they were actuated by principles very different from that of mere convenience. All his other arguments are equally weak and groundleſs, as might eaſily be made to appear, if this were the proper place: his and Monteſquieu's credulity in giving ear to the incredible tales of Thevenot, Garcilaſſo de Vega, and Baumgarten, is aſtoniſhing.

825. Neither is the *notion* we have of *God* innate; it is evidently a concluſion of reaſon; for the viſible marks of extraordinary wiſdom and power, appear ſo plainly in all the works of the creation, that a rational creature, who will but ſeriouſly reflect on them, cannot miſs the diſcovery of a Deity.

826. The notion of a *ſoul* ariſes from conſciouſneſs, memory, and reflection.

827. *General notions* are derived from the relation of ſimilitude, which is either immediately diſcerned or inferred by reaſoning.

Complicative

Complicative notions ariſe from reflections on various objects connected with each other under a particular name.*

828. Practical experimental truths are evidently learned by our own experience, or by inſtruction.

SECT. III.

OF THE DEGREES OF HUMAN KNOWLEDGE.

829. Knowledge is a word variouſly applied; ſometimes it is ſynonimous to the *conſciouſneſs* of a perception or any other preſent ſtate of the mind, as when I ſay, *I know what I feel, ſee, or hear*; or *I know that I remember*; ſometimes it denotes the *ability of diſtinguiſhing*, as when I ſhould ſay, *I would know my horſe among a hundred*; ſometimes it is ſynonimous to *conviction*, as when I ſay, *I know I had an anceſtor one thouſand years ago*; frequently it ſignifies *acquaintance* with a ſcience, as when it is ſaid, *Newton's knowledge of mathematics was profound.*

* Locke, B. ii. C. 22.

830. Knowledge is either *direct*, as that juſt deſcribed, or *indirect*. Direct knowledge is that gained by the medium of one's own ſenſes, and therefore called *ſenſitive*, or *experimental knowledge*; or by one's own reflection, ſtudy, and meditation, ſuch as the knowledge of geometry, logick, metaphyſics, &c.: this is called *ſpeculative* knowledge, in contradiſtinction to *practical*, which denotes the knowledge of the manual arts.

831. *Indirect* knowledge is that which reſts on proper teſtimony, whether written or oral; or it is inferred from the falſehood of a contradictory propoſition.

832. Knowledge then is grounded either on conſciouſneſs, the perceptions of ſenſe, the diſcernment of relations, or the ſuggeſtions of memory.

833. By *conſciouſneſs*, the exiſtence of ſtates of the mind, whether active or paſſive, is known, and conſequently the perceptions of ſenſe, emotions, affections, paſſions, judgments, and the dictates of the moral ſenſe.

834. On the *diſcernment of relations*, judgments and reaſoning are founded.

835. On the relation of analogy, and partly alſo

alſo on inſtinct, the *perſuaſion* that the paſt reſembled the preſent in ſimilar caſes, and the *expectation* that the future alſo will reſemble the preſent, and conſequently what is called experimental knowledge, entirely reſt.

836. On the ſame grounds, the admiſſion and reliance on teſtimony are grounded.

837. From the ſuggeſtions of memory, the continuance of every ſpecies of knowledge ariſes.

838. The degrees of knowledge are various, but it is only to the higher degrees, that the denomination of *knowledge* is attributed.

839. The degrees of knowledge reſult from a more or leſs perfect diſcernment of relations, or from a more or leſs perfect memory.

840. The higheſt or ſupreme degree of knowledge is founded either on conſciouſneſs, or on the full, clear, and accurate diſcernment of the relations of identity, equality, or coincidence, or of the relation of cauſation, or on that of incluſion, or on the primary dictates of the moral ſenſe, or on Divine relation, clearly proved and aſcertained, or on perfect memory. See N° 761.

841. Knowledge thus grounded is called

evident, the conviction ariſing from it being ſimilar to that reſulting from clear and diſtinct viſion: it is attended with a ſentiment of firm and entire confidence, which is called *certainty*, a term alſo borrowed from viſion, and the objects of it are alſo called *certain*, that is, deemed to be as clearly known as if they had been ſeen.

842. But unfortunately ſuch confidence attends, and has attended judgments, not grounded on evidence, nor even on any approximation thereto, but, on the contrary, clearly proved to be falſe. Such as that the planet we inhabit is a flat and not a round maſs; that the ſun moves round it, that it riſes and ſets, &c. Such judgments proceeded from inattention to the frequent miſtakes occaſioned by reliance on mere appearances in numerous inſtances, and not remarking that it is from experience alone we learn to form a true eſtimate of the credit that ſhould be given to them.

843. In the ſame manner judgments early formed, and long perſiſted in, but originally grounded on authority, perhaps indeed the moſt reſpectable, are adhered to with the utmoſt

moſt confidence, and conſidered as abſolutely certain, though the ſlighteſt reflection might convince men, that betwixt any authority (except the Divine) and any ſpeculative truth, no neceſſary connexion ſubſiſts; and that the moſt oppoſite tenets are ſupported by authorities equally reſpectable; that therefore a ſtrict and impartial examination can alone lead to a deciſion that may be fully relied upon.

844. The paſſions of hope, fear, love, hatred, party attachments, impatience, diſguſt, in ſhort all paſſions, form another copious ſource of deluſion, either by urging precipitate deciſion without any examination, or preventing a due attention to the reaſons that oppoſe the ſide of the queſtion they favour; yet the deciſions they ſuggeſt are frequently relied on with the utmoſt confidence, and conſidered as certain.

845. Though evidence is not ſuſceptible of degrees, nor conſequently the certainty that attends it, yet there are many approximations towards it, and the neareſt or higheſt of theſe are very properly attended with a degree of confidence equal to that which reſults from

evidence itſelf: ſuch approximations when found in moral ſubjects, are therefore ſaid to be *morrally certain*, and when in phyſical ſubjects, *phyſically certain*: this certainty is ſuſceptible of degrees.

846. *Moral certainty* relates to facts; when derived from unimpeachable teſtimony it is called *extrinſic*; when on reaſoning from indubitable facts, human nature, or the characters of men, it is called *intrinſic*; but theſe characters can frequently be known only by teſtimony, conſequently intrinſic certainly frequently involves extrinſic.

847. *Phyſical certainty* in many inſtances is founded on our own conſtant and uniform experience of ſimilar effects in ſimilar caſes, but our more extenſive knowledge of the conſtancy, and uniformity, and univerſality of theſe or any other effects, is ſolely derived from approved teſtimony, as no man has lived in all ages, nor has ſeen what paſſes or has paſſed in all other countries, in many of which, events happen or have happened unexperienced in other countries or ages. Thus the phyſical certainty, even of the laws of nature, embraces alſo moral certainty. That

the preſent generation had anceſtors two thouſand years ago, though now unknown, is phyſically certain; for who can doubt it? And it is equally certain that we ſhall die, though we have not experienced death: hence phyſical certainty does not always require conformity with our perſonal experience. Particular reſults from unknown laws of nature, as earthquakes, volcanoes, &c. are from uncontroverted teſtimony known with certainty by thoſe who never have witneſſed ſuch phænomena.

848. The convictions gained by ſuch cloſe approximations to evidence are alſo knowledge, but perſuaſions grounded on more diſtant approximations, are known by the name of *opinions* or *belief*, and the things believed are called *probable*.

Probability is ſuſceptible of various degrees; the loweſt is called *ſuſpicion*; below it we rank *doubt*, *improbability*, and impoſſibility.

849. Judgments therefore are either evident and certain, or certain though not evident, or more or leſs probable, or merely doubtful.

SECT. IV.

OF TRUTH, REALITY, AND REASON.

850. *Truth* is taken in two ſenſes: firſt, it is taken for the exiſtence of a correſpondence, conformity, or agreement of ſigns, with the things ſignified; or for the abſence of ſuch correſpondence or agreement, where they do not exiſt: thus, that *a circle is a line whoſe parts are equidiſtant from a common centre*, is a true propoſition. So *that five and three are not ten, is alſo a* true propoſition.*

851. Secondly, truth is taken as ſynonimous to *reality*, and reciprocally by reality truth is underſtood; *true gold* denotes real gold, having all the properties of gold; a true circle denotes a figure that is really circular: it is then underſtood in contradiſtinction to merely *apparent*, fanciful, or imaginary. *Apparent* is a term borrowed from the ſenſe of ſeeing, and *real* is a term taken from the ſenſe of feeling. Now, as we are often deceived by the ſuggeſtions of ſight, and never by the ſenſe of feeling, *reality* and truth are conſidered as

* 1 Pourchot, 52.

ſynonimous:

ſynonimous: yet, as the ſuggeſtions of ſight, when corrected by experience, are not at varience with ſenſations of feeling, appearances and reality often coincide; the ſame thing may be true both in appearance and in reality.

852. *Reality*, then, though originally a term applied to the objects perceived by the ſenſe of feeling, is alſo aſcribed to all other objects, of whoſe exiſtence we are as confident as we are of the exiſtence of the objects of that ſenſe.

853. Evident truths never contradict each other, but truths that are *barely certain* may in a few inſtances: thus, though it is phyſically certain that bodies ſpecifically heavier than water will ſink in it, it is equally certain that leaf gold, though twenty times ſpecifically heavier, will not ſink in it. Miracles are alſo exceptions to thoſe general laws of nature on which our certainty of facts, contradictory to thoſe miraculous facts, are founded.

854. Thus, truths grounded on *moral certainty* or *revelation*, may contradict thoſe grounded on *phyſical certainty*; and, *a fortiori*, they may contradict truths that are barely probable;

probable; but they cannot contradict thoſe that are evident.

855. A *falſe propoſition* is not always *contrary* to a true propoſition, for it may be contrary to another falſe propoſition: for inſtance, the following contrary propoſitions are both falſe; *all men are white, all men are black.**

856. Of truths, ſome are neceſſary, ſome contingent; *neceſſary* truths are thoſe only which are evident; *contingent* truths are thoſe which may or might, by any poſſibility, not have exiſted.

857. *Reaſon* is alſo a word ſuſceptible of different ſenſes.

Firſt, it is taken for the power or *faculty of reaſoning*, or in other words the diſcurſive power, as ſome call it; as when it is ſaid, that *man is the only animal endowed with reaſon.*

858. Secondly, it is taken for the *exerciſe of that power*, and alſo for the perceptions of the moral ſenſe; as when we ſay that *the conduct of men ſhould be governed by reaſon.*

859. Thirdly, it is taken for *truth*, and for

* See Log. Vol. I. N° 115.

right,

right, as when it is ſaid, that an opinion, judgment, or ſyſtem, is *conformable to reaſon*; or *that it is right*, or *conformable to juſtice*.

860. Fourthly, it often denotes an argument by which we would prove any truth, or refute any falſehood; as when we ſay, *this muſt be true, for this or that reaſon*.

861. Fifthly, it is taken for occaſional, or efficient, or inſtrumental, cauſe: as when we ſay, *the reaſon of his change of conduct, was a trivial accident*, &c.

Sixthly, it is taken for a *motive*, or final cauſe.

862. A reaſon may be either evident, certain, probable, right, juſt, or proper, or the contrary.

863. A propoſition, or action, or conduct, is ſaid to be *conformable to reaſon*, when agreeable to certain or evident truths, or even to probable truths, where neither evidence or certainty can be attained; or when agreeable to the dictates of the moral ſenſe.

864. A propoſition is ſaid to be *contrary to reaſon*, firſt, when it contradicts any evident truth; ſecondly, when it contradicts any truth phyſically certain, unleſs this be contradicted by

by a ſuperior certainty; thirdly, when it contradicts a probable or more probable truth.

865. A truth is ſaid to be *above reaſon* when it is not directly diſcernible by our reaſoning faculty, nor *analogous* to any known truth, and yet is neceſſarily connected with and inferred from, a known truth, or contradicts a known falſehood. That the Supreme Being is *eternal*, is a truth of this ſort, being inferred from the neceſſity of his exiſtence.

SECT. V.

OF THE DEGREES OF ASSENT, CERTAINTY, AND PROBABILITY.

866. The firſt and higheſt degree is that which we give to evident truths, whether intuitive or demonſtrative, metaphyſical, mathematical, moral, or revealed. The intuitive perhaps demand the higheſt, as they are immediately diſcerned, and alſo thoſe that are immediately revealed; whereas thoſe that are demonſtrated, particularly the mathematical, require the exerciſe of memory; but when the proceſs of deduction is repeated, and each ſtep

is intuitively evident, the whole is as evident as the firſt ſtep.

867. The ſecond is that given to irrefragable teſtimony.

868. The third is that given to mathematical or other propoſitions, which we perfectly remember to have once demonſtrated, and are generally received, but whoſe demonſtration we cannot now recollect.

869. The fourth is that which we give to the laws of nature, which we have learned by experience or irrefragable teſtimony, even though we ſhould not now recollect the experiments from which thoſe laws were inferred. *Experimentum fallax* is an aphoriſm generally received, but not *experementa ſunt fallacia:* a ſingle experiment may not be a foundation ſufficiently ſolid on which to erect any law, but numerous experiments are, if uniform and univerſal.

870. Here certainty ends.

871. The fifth is that given to facts intrinſically *probable*, and ſupported by credible teſtimony, but whoſe probability, whether intrinſic or extrinſic, is ſuſceptible of increaſe.

872. The ſixth is that given to an argument

ment or opinion which is deemed more probable than that oppoſed to it. It may be increaſed by its agreement with the opinions of men of the moſt reſpectable authority, or diminiſhed by their oppoſition, if diſintereſted and diſprejudiced.

873. The ſeventh is that given to *indifferent* facts ſupported by credible teſtimony, but ſuſceptible of increaſe.

874. The eighth is that given to uncommon and marvellous facts, ſupported by credible teſtimony, but ſuſceptible of increaſe.

875. Conſequences logically deduced from any principle or truths, are as certain as the principles from which they were deduced: but probable conſequences are leſs probable than thoſe from whence they were deduced.

876. The ninth is that given to propoſitions not underſtood by the perſon who aſſents to them merely on highly reſpectable teſtimony; of this ſort are many mathematical and other ſcientific propoſitions, which are credited though not underſtood by perſons ignorant of thoſe ſciences.*

* Locke, B. iv. c. xv. ſec. 1. and my Log. N° 686, Vol. II.

SECT.

SECT. VI.

OF ABSURDITY, UNINTELLIGIBILITY, INCOMPREHENSIBILITY, INCONCEIVABLENESS, AND INEXPLICABILITY.

877. *Abſurd.* Whatever contradicts opinions generally received, is deemed abſurd, whether thoſe opinions be true or falſe; hence we ſee an opinion or propoſition may be *really* or *falſely* deemed abſurd. In the latter caſe the abſurdity is merely *imaginary:* thus the Copernican ſyſtem, and the notion of antipodes, were long reckoned abſurd.

878. A term is *unintelligible* when it has no ſignification, as *blytri.*

879. Complex terms are *unintelligible* when repugnant to each other, though each be intelligible, as a *round ſquare.*

880. A complex term is alſo *unintelligible* when no relation can be diſcerned betwixt the terms it conſiſts of, though each apart may be underſtood; for inſtance, the ſubſtantial *forms* of the peripateties, the interior moulds of Buffon, &c.

881. A propoſition is *unintelligible* when the terms it conſiſts of are deſtitute of any ſignification,

ſignification, as *blytri is bocardo*, or the *ſoul is bocardo*; or whoſe ſubject and predicate are repugnant to each other, as *God is unjuſt*.

882. But if the terms of the propoſition bear any analogy to terms whoſe ſignification is known, it may be underſtood, though imperfectly: thus colours are not entirely unintelligible by a blind man, as I have elſewhere ſhewn; though he can form no idea of them.

883. A thing is ſaid to be *incomprehenſible*, firſt, when all its properties cannot be known, and in this ſenſe all things are incomprehenſible; and, ſecondly, when it is imperfectly intelligible, as the eternity and infinitude of the Supreme Being. But we may form notions of them, though imperfect.

884. A propoſition is *inconceivable* when neither an idea nor a notion of it can be formed; and thus it differs from incomprehenſible.

885. A thing is *inexplicable* when the ſeries and operation of its intermediate cauſes cannot be aſſigned. Inexplicability, or inconceptibility, is a juſt exception to an unproved hypotheſis, though it be not to a known fact

or

or acknowledged truth. Clarke's Reply to Waterland, 305, 306.

CHAPTER VII.

OF HABITS.

886. *Habit* is a long-continued repetition of action or endurance, by which a greater facility of either is commonly gained. I ſay endurance, becauſe a perſon may be habituated to abſtinence, faſting, cold, and other privations, which, from frequent repetitions, are more eaſily endured: habits therefore may be either active or paſſive. To be habituated, ſignifies to have undergone frequent repetitions of either kind.

887. The commencement of either kind of habit is fully attended to, being frequently accompanied either with pain or pleaſure; but in its progreſs, both are gradually diminiſhed and finally vaniſh; and, what is more extraordinary, the pain is often transformed into pleaſure, as in the habit of chewing, ſmoking, and ſnuffing tobacco: and pleaſure frequently

terminates in diſguſt, as may be obſerved in ſcenting ſweet ſmells, the repetition of the ſame ſtory, jeſt, &c.

888. In habitual action, though ſome degree of attention be abſolutely requiſite, yet its degree is often ſo ſmall and ſo tranſient, that it cannot be recollected; this is ſtrikingly apparent in the rapid execution of muſic, where the notes, both of treble and baſs, and the proper poſition of the fingers, muſt inſtantaneouſly and ſimultaneouſly be attended to, though the different volitions requiſite for each cannot be recollected. The ſame fugacity and oblivion of attention are obſervable in reading, rope-dancing, &c. See Stewart's excellent obſervations on attention, in his Eſſay on the Mind, Part. ii. Chap. 2. And for the ſame reaſon a noiſe to which we are long accuſtomed, as that of a caſcade or water-fall, by thoſe that live in its neighbourhood, ceaſes at laſt to be diſtinctly noticed, its perception being nearly evaneſcent. Stewart's obſervations on habits are new, curious, and ſatisfactory.

CHAPTER VIII.

OF THE FACULTY OF APPROBATION AND DISAPPROBATION, OR THE SENTIMENTAL FACULTY.

889. As by the faculty of judgment we diſcern truth and falſehood, ſo by the faculty of approbation or diſapprobation we acquire the perception of *right* and *wrong*.

890. Theſe two faculties ſhould not be confounded with each other, for their general objects are different: the object of judgment and reaſoning is the diſcovery of truth or falſehood, the object of the faculty of approbation is the *perception* of right or wrong. Their grounds are alſo different; thoſe of the judicial faculty are the diſcernment of the relations of identity, or diverſity, ſimilarity, correſpondence, cauſation: the ground of the ſentimental faculty, is not a relation of any kind, but a mere perception.

891. The diſcernment of a truth before unknown is attended with pleaſure; but that pleaſure is not a perception of any quality in

the objects, but results from the conſciouſneſs of poſſeſſing the ability of diſcovering it, or from a proſpect of its uſe in promoting and facilitating practical or ſpeculative knowledge: whereas the pleaſure of approbation, and the pain attending diſapprobation, ariſe from a perception of qualities perceived in the objects approved or diſapproved.

892. Both faculties agree in this, that the judgments of the one and the perceptions of the other are frequently intuitive. It muſt alſo be remembered, that this perception is frequently, though improperly, called a judgment.

893. To *approve* an object, therefore, ſignifies that we are pleaſed with it; and by exciting that pleaſure, it is ſaid to be *right* or *good:* and to *diſapprove* an object, is to be diſpleaſed with it; and by cauſing that diſpleaſure, it is ſaid to be *wrong* or *bad,* faulty or ridiculous.

894. The objects of approbation or diſapprobation are either of a *phyſical* or *moral* nature: the former, if approved, are *phyſically right, or good;* if diſapproved, *phyſically wrong, or bad.* Thus we approve of a well-contrived

trived machine that anſwers the purpoſe for which it was intended, of any uſeful invention, of an entertaining poem, of an exact repreſentation, of a true hiſtory, &c. This approbation extends alſo to the author of ſuch pleaſing works, and then it is called *praiſe*.

895. *Objects of a moral nature* are thoſe that regard the conduct of men, either with reſpect to themſelves, or towards the Supreme Being, or towards each other. Such conduct or actions as are approved, after a due inveſtigation, if any inveſtigation be required, are ſaid to be *right*, or morally *good*; and ſuch as are diſapproved are ſaid to be morally *wrong*, *bad*, or *evil*; ſuch as excite no ſentiment of approbation or diſapprobation, are *indifferent*, and of this nature are all actions abſtractedly conſidered; actions productive of approbation, but whoſe omiſſion is not attended with diſapprobation, may be called *heroic*.

896. As moral actions are by far the moſt important, and concern moſt nearly the happineſs of the agent, as well as of human ſociety; and as the pleaſure or diſpleaſure at-

tending their perception is by far the moſt conſiderable; the faculty of perceiving thoſe ſentiments obtained the name of *moral ſenſe*, or *inſtinct*, or *conſcience*.

897. As there is a natural and evident neceſſity that we ſhould *love* what pleaſes us, and diſlike or hate what diſpleaſes us, this neceſſity, when applied to the pleaſing or diſpleaſing perceptions of the moral ſenſe, is called a *moral obligation*. Conſequently we are obliged to entertain thoſe ſentiments, and purſue that line of conduct which the moral ſenſe approves, and avoid ſuch as the moral ſenſe diſapproves.

898. Such of our actions or ſentiments as are approved, and whoſe omiſſion by us is diſapproved, are called our *duties* and *obligations*.

The duties of *others to us* are called *our rights*, and their obligations. *Our* duties to others are called *their rights* and our obligations.

899. Though actions, as being manifeſt, are the primary objects of our approbation or diſapprobation, yet the reſolutions, intentions, and ſentiments, that influence the production

of

of thoſe actions, and the agents, authors, or adviſers, &c. from their connexion with theſe actions, naturally participate of the approbation or diſapprobation which thoſe actions excite.

900. As actions that are *approved* give us pleaſure, they naturally excite benevolent affections towards the agent; we wiſh him in return an adequate degree of pleaſure and ſatisfaction, and approve of his receiving it. An equivalent pleaſure or ſatisfaction thus deſired and approved, in return for a pleaſure or benefit received, is called a reward; and the perſon on whom we approve of its being conferred is deemed to be entitled to it; or, in other words, to *merit* or deſerve it, or that there is a propriety in his receiving it.

901. *Merit* then conſiſts in the title or right to a reward; and the action by which this title accrues, and the intentions that lead to it, are called *meritorious*.

902. Of actions that are *diſapproved*, it is plain that what is above ſaid is equally to be underſtood, but in a contrary ſenſe; ſubſtituting *pain* for pleaſure, and malevolent for benevolent.

903. *Demerit*, or guilt, then conſiſts in a title or liability to pain.

904. The action of a being poſſeſſed of freedom, and ſufficient intelligence to enable him to diſtinguiſh whether it be right or wrong, is called a *moral* action; otherwiſe it is merely *phyſical*. Hence the actions of infants, and many of thoſe of ideots or madmen, are incapable of merit or demerit; but if a perſon, voluntarily and knowingly, puts himſelf or others in a ſtate that deprives him or them of intelligence (as drunkenneſs,) it diminiſhes his guilt but in a very ſlight degree. The *morality*, or moral nature of action, requires theſe conditions.

905. An action is morally evil, if its motive, intention, end, or the means employed to attain even a good end, are diſapproved as morally evil.

906. Where previous facts, or the neceſſary or probable conſequences of actions require conſideration and diſcuſſion, there the *judicative* faculty operates; but where the reſulting rights or duties are weighed, on theſe the moral faculty decides.

907. Duties are either *perfect* or *imperfect*: they

they are perfect where the perſons to whom they are due are known, certain, and determinate, and the extent or meaſure of the duty aſcertained; the correſponding rights of the perſons to whom they are due are then perfect: but where the perſons to whom their performance is due, are undetermined, and the meaſure of the performance undefined, the *duties*, and alſo the correſponding *rights*, are imperfect.

908. Yet the total neglect of theſe imperfect duties muſt be diſapproved; as, among their various objects, ſome may be ſelected, and the meaſure of performance ſhould be proportioned to the abilities of the performer, and conſiſtent with other duties: the perfect ſhould always be preferred to the imperfect.

909. *Juſtice* conſiſts in the performance of a perfect duty; therefore, it is the *right* of thoſe to whom it ſhould be done, if beneficial to them; or of ſociety, if beneficial to it; and an *obligation* upon thoſe who ſhould perform it.

910. Juſtice is commonly divided into diſtributive and vindictive, to which we may add, *corrective* and *preventive*.

911. *Diſtributive juſtice* conſiſts in giving to every one, that to which he has a perfect right.

912. *Vindictive juſtice* demands the infliction of adequate pain on him, whoſe actions are ſtrongly diſapproved, and therefore deſerve puniſhment. See N° 900, 901, 902.

913. *Corrective juſtice* requires the infliction of ſuch puniſhment for certain evil actions, as is deemed neceſſary for the amendment of the perſons on whom it is inflicted.

914. *Preventive juſtice* conſiſts in puniſhing offenders, with a view of preventing the innocent from being perverted by their example and impunity: and even of ſubjecting innocent perſons to inconvenience, if afflicted with a dangerous contagious diſorder, to prevent its extenſion.

915. *Law* is the juſt command of a rightful ſuperior, duly promulgated, and to which obedience is due. It ſhould be *juſt*, for if evidently unjuſt it is not a law, and ſhould not be obeyed: but if its injuſtice be barely probable, obedience ſhould be yielded to it.

916. Secondly, the ſuperior ſhould be right-

ful,

ful, otherwiſe the command of a robber would be obligatory.

917. Thirdly, it ſhould be known, as is evident.

918. Law is either *external*, or *internal*: the external is that revealed by God in the canonical books of the Old and New Teſtament, and the municipal law of the country. The internal conſiſts in the dictates of the moral ſenſe; for theſe ſpontaneouſly ariſing from the conſtitution of our intellectual faculties, and diſobedience to them in many caſes puniſhed by the ſevere pain of remorſe, muſt be derived from the Supreme Being, and conſequently are the commands of a ſuperior whoſe juſtice cannot be controverted.

919. Yet theſe dictates are liable to perverſion, at the firſt dawn of our intellectual faculties, by thoſe to whom our education is intruſted; or may afterwards be miſled by plauſible arguments not ſufficiently conſidered and compared with thoſe that oppoſe them; or by authorities in whom, in general, we have reaſon to confide; or by paſſion, prejudice, or inattention. Such errors

are ſometimes excuſable in ſome degree, and ſometimes not.

920. Firſt, when the objects upon which the moral ſenſe is to decide are intricate, involving rights or duties apparently oppoſite to each other; or reſting on facts whoſe falſehood is not then known, and ſufficient attention has been applied, its errors proceed from want of penetration or inculpable ignorance, and therefore are fully excuſable.

921. Secondly, errors militating with the moſt ſimple dictates of the laws of nature, and obvious on the ſlighteſt cool reflexion, are inexcuſable; nor can ignorance, and ſtill leſs cuſtom, long or univerſal uſage, or any authority inferior to that of the Author of nature, afford a ſufficient plea for their extenuation; indeed ſuch ignorance cannot be ſuppoſed.

922. Thirdly, nor can the dictates of an erroneous conſcience in any caſe excuſe compliance with its ſuggeſtions when they urge to the commiſſion of actions manifeſtly and immediately injurious, or to the infliction of puniſhment for mere ſpeculative opinions or practices, neither ſhocking to humanity, nor

dangerous

dangerous to ſociety. Chriſt ſaid,* that thoſe that would put his diſciples to death, would belive they thereby pleaſed God: could that exempt them from criminality, even allowing them to have acted under the authority of the Sanhedrim, the higheſt legal authority in their ſtate? Motives much ſuperior to any human authority, and ſufficiently notorious, then exiſted, which ſhould have deterred them from the commiſſion of ſuch atrocious crimes.

923. Nor can any ſtate neceſſity ever ſo evident, and much leſs the probability of ſuch neceſſity, authoriſe the privation of an innocent individual of his life, or even of his liberty, or any other right, without a compenſation. The ſtate maxim *ſalus populi ſuprema lex* does not extend to ſuch caſes.

924. All general rules are commonly denominated *laws*, thus the general rules which bodies obſerve in the communication of motion, are called the laws of motion; but thoſe general rules which our moral faculties obſerve in approving or condemning whatever

* John xvi. 2. See alſo 1 Corinth. xv. 9.

ſentiment

ſentiment or action is ſubjected to their examination, may much more juſtly be denominated ſuch: they have a much greater reſemblance to what are properly called laws which a ſovereign enacts for the conduct of his ſubjects: like them they are rules to direct the free actions of men; they are preſcribed moſt ſurely by a lawful ſuperior, and are attended to with the ſanction of rewards and puniſhments. Thoſe vicegerents of God within us, never fail to puniſh the violation of them, by the torments of inward ſhame and ſelf-condemnation; and, on the contrary, always reward obedience with tranquillity of mind, with contentment and ſelf-ſatisfaction.*

925. *Virtue* conſiſts in the practice of perfect and imperfect duties: its degree is meaſured by the difficulties that attend them, and bears an exact proportion to the efforts made to ſurmount them: the imperfect duties ſhould not be practiſed at the expenſe of the perfect, nor theſe to the neglect of the imperfect.

* Smith's Moral Sentiments, Part. iii. chap. iii. p. 236.

ESSAY III.

OF THE EXISTENCE, AND ATTRIBUTES OF THE SUPREME BEING.

CHAPTER I.

OF THE EXISTENCE OF THE SUPREME BEING.

926. By the Supreme Being is meant, the firſt of all beings, and from whom all other beings are derived, or in other words to whom they owe their exiſtence: this Being is called *God*, or the *Deity*.

927. The exiſtence of a Supreme Being is not an intuitive truth, that is, diſcerned as ſoon as the terms are underſtood; it requires the exerciſe of our reaſoning powers to preſent it to the mind in its full force; but it is capable of being proved demonſtratively, both *a priori*, and *a poſteriori*.

928. A demonſtration is a proof whoſe premiſes are ſelf-evident, or which produces in us a conviction equal to that produced by ſelf-evident premiſes. The exiſtence of every being

being different from our own (of which we are conſcious) is known to us either by diſcerning the neceſſity of its exiſtence from its nature, or from its cauſes; and as theſe are known prior to the inference of its exiſtence, the proofs thus ariſing are called *a priori*: or the exiſtence of a being different from our own is known to us by its effects upon us; and as theſe are ſubſequent to its exiſtence, the proofs derived from them are called proofs *a poſteriori*.

SECT. I.

A DEMONSTRATION OF THE EXISTENCE OF THE SUPREME BEING A PRIORI.

929. Since many beings now exiſt, ſome one or other of the following propoſitions concerning the duration of their exiſtence muſt be true, as they comprehend every poſſible caſe.

Firſt, *all* the beings now exiſting, have always exiſted.

Second, *ſome* of the beings now exiſting, have always exiſted.

Third,

Third, *one* of the Beings now exiſting, has always exiſted.

Fourth, *none* of the beings now exiſting, has always exiſted.

930. The firſt propoſition is evidently falſe, for we are conſcious that we ourſelves have not always exiſted, and we are certain that neither the preſent or paſt generations of animals or vegetables have always exiſted.

931. The fourth is alſo falſe, for if *none* of the beings now exiſting had always exiſted, no being now exiſting could ever exiſt: for their preſent exiſtence, ſince they do exiſt, muſt in that caſe have had a beginning; but this beginning would be impoſſible, as they could not give exiſtence to themſelves, and no other being, from whom they could receive it, is (by the propoſition) ſuppoſed to exiſt. A *beginning* implies a change from non-exiſtence to exiſtence; a *change* implies an action, and an *action* an agent: now that agent muſt be another Being which had no beginning, elſe the ſame impoſſibility would recur; therefore the fourth propoſition is falſe, as its verification would require an impoſſibility, an action without an agent.

932. Therefore the third propoſition muſt be true, as it exactly contradicts the fourth; and of two contradictory propoſitions, if one be falſe the other muſt be true.

933. But as the third propoſition is not excluſive, its truth does not impeach the poſſible truth of the ſecond, namely that ſome beings have always exiſted, and conſequently, that at leaſt two may have always exiſted; its falſehood however ſhall be ſhewn in the third ſection: in the mean time we ſhall ſuppoſe that one only being has always exiſted.

934. The non-exiſtence of a Being which has always exiſted is abſolutely impoſſible; for a Being that has always exiſted, can at no imaginable period of duration be ſuppoſed to have been merely poſſible, and, conſequently non-exiſting; now the non-exiſtence of a being, which being cannot in imagination be ſuppoſed to have been merely poſſible (for any thing poſſible may be ſuppoſed) muſt be impoſſible; and if its non-exiſtence be impoſſible, its exiſtence muſt be neceſſary: and a being whoſe exiſtence is neceſſary we call *God*.

935. This neceſſity is not merely *relative*, that

that is, merely inferred, from the exiſtence of other beings, whoſe exiſtence requires a cauſe, but it is *abſolute*; for if no other being had ever exiſted, this neceſſity (though in that caſe unknown to us) would equally ſubſiſt. What it ariſes from, or on what principle in the Divine conſtitution it is founded, we do not know; but that it exiſts we evidently ſee, ſince we know its abſence to be impoſſible: our ignorance of its nature affords no ground of diſbelief, for we are equally ignorant of the nature of our own thinking principle, and yet we muſt believe its exiſtence.*

Proofs a poſteriori.

936. The proofs *a poſteriori*, extend much further than thoſe *a priori*; for they do not barely demonſtrate the exiſtence of the Supreme Being, but alſo his power, intelligence, and wiſdom, to a boundleſs extent.

Firſt, we know that we ourſelves exiſt, and

* Another and moſt ingenious proof, *a priori*, of the exiſtence of the Supreme Being has been given by Dr. Hamilton, late Biſhop of Oſſory, in a particular tract publiſhed in 1785.

that our parents are only the occaſional cauſes of our exiſtence, but are totally ignorant of the mode of our formation and ſtructure: theſe, therefore, muſt be effected by a Being totally foreign to us, and of a ſuperior nature.

973. Secondly, we are conſcious of a variety of ſtates, viz. our ſenſations, affections, whether pleaſurable or painful, and that we cannot produce the former, nor avoid feeling the latter by a mere act of our will; therefore we are not the *direct* cauſes of either: but as no ſtate or modification can exiſt without an efficient cauſe, theſe modifications muſt be produced by a Being foreign to us, whoſe power is far greater than any we poſſeſs.

938. Thirdly, in the diſpoſition and arrangement of that ſeries of ſenſations which we call the works of nature, becauſe they exiſt independently of our will, we find a connexion eſtabliſhed betwixt our viſible and tactile ſenſations, by which, as by an univerſal language, we are inſtructed how to act with reſpect to things diſtant and future, as well as near and preſent; conſequently we have the ſame proof of the exiſtence of the Being

Being that communicates to us this inſtruction, that we ſhould have of an inviſible man that ſhould inſtruct us by ſounds; that is, ſpeak to us and tell us how to act on different occaſions. See N° 470, 471.

939. Further, the works of nature, as they are called, whether animate or inanimate, exhibit ſuch a wonderful diſplay of intelligence, contrivance, and deſign, as render it impoſſible for an attentive and rational mind not to conſider them as the effects of a Being poſſeſſing thoſe attributes in a degree far exceeding any aſſignable or conceivable limits, and therefore juſtly deemed infinite. The inſtances are too numerous to be here detailed; an extenſive, and yet much contracted, view of them may be had in Archdeacon Paley's excellent treatiſe of Natural Theology.

SECT. II.

OBJECTIONS.

940. Moſt of the objections to the exiſtence of the Divine Being are grounded on the ſup-

poſition of the exiſtence of matter, which, atheiſts ſay, exiſted from all eternity, and is ſuſceptible of infinite modifications and arrangements, during an infinite ſpace of duration; and hence ſome, even Chriſtian theologians,* denied that the exiſtence of the Supreme Being could be demonſtrated, and that it at moſt could be rendered highly probable.

941. But as it has been ſhewn, that matter itſelf is an ungrounded fiction, involving a contradiction, theſe objections require no conſideration. I ſhall ſtate only thoſe that do not depend on this ſuppoſition.

942. In the firſt place, it is ſaid, that no connexion can be diſcerned betwixt the will of one being, that another ſhould exiſt, and the ſubſequent exiſtence of that other; and that therefore the derivation of the latter from the former is *inconceivable:* and in truth, if abſtractly conſidered, it is ſo; but it is not repugnant, and therefore it is poſſible, unleſs we take for granted, that whatever is inconceivable is alſo impoſſible, which is evidently

* See 1 L'Herminier, p. 37. 41. 56.

falſe;

falſe: can we conceive the connexion betwixt the motion of one of our limbs and our will to move it? But, laying abſtractions aſide, the connexion betwixt the will of a Being whoſe power is infinite, and the exiſtence of another being which he wills to exiſt, is eaſily diſcerned; for if that other being be in itſelf poſſible (and its exiſtence ſhews it to be poſſible) it may well be produced by a power that knows no bounds, but thoſe of poſſibility: whereas the production of motion, by the ſole act of our impotent will, is truly inconceivable. The antient maxim, *ex nihilo nihil fit*, is not applicable to infinite power.

943. Some atheiſts deny the neceſſity of inferring the exiſtence of one unoriginated being, in order to account for the exiſtence of all other beings. They tell us there exiſts an infinite ſucceſſion of beings, each of whom derived its exiſtence from preceding beings, as theſe did from others anterior to them, in an endleſs progreſſion, and yet that the whole ſucceſſion exiſts neceſſarily: and thus they think, that though each link or branch of the ſucceſſion was produced, yet that the whole was unproduced.

944. But, in the firſt place, a ſucceſſion actually infinite, whether unoriginated or actually endleſs, is impoſſible, as has been elſewhere ſhewn.

And ſecondly, if each link or branch of the ſucceſſion were produced, the whole, that is, all the branches, muſt have been produced; for what is the whole but the collection of all the parts?

945. Nor does it avail to ſay, that many things may be affirmed of each of the parts of which a whole conſiſts, which cannot be affirmed of thoſe parts conſidered in the aggregate and collectively. Thus the parts of which a whole conſiſts, taken ſingly, may be inviſible, or nearly ſo, and yet, taken collectively, they may be perfectly viſible. The obſervation is certainly juſt with reſpect to properties that are ſuſceptible of increaſe. The minute particles of bodies may be nearly inviſible if taken ſeparately, becauſe they do not reflect a ſufficient quantity of light; but when collected and joined together, they reflect more light, and therefore the aggregate is more viſible; but where the properties are unſuſceptible of increaſe, they receive

no

no alteration by their aggregation. Thus, as each man in any multitude of men was born and muſt die, the whole multitude was born and muſt die. Now production is a property of this ſort; each of the parts, of which the infinite ſeries is alleged to conſiſt, is allowed to have been produced, therefore the whole muſt have been produced. Where then could the neceſſity of its exiſtence reſide? No where; therefore it is a pure chimerical fiction.

SECT. III.

OF THE UNITY OF THE SUPREME BEING.

946. Firſt, we have no proof of the plurality of Gods, nor is there any reaſon to ſuppoſe it.

947. Secondly, if there were more than one God, there might be an infinity of gods, which ſeems abſurd; for to ſuppoſe even two beings exiſting independently of each other, that is, having ſeparate exiſtences, and yet both to exiſt neceſſarily, involves a contradiction; for if the exiſtence of each is independent of that of the other, and perfectly unconnected

connected with it, then the existence of one of them separately from that of the other, is perfectly conceivable and intelligible; therefore the non-existence of the other may be supposed; therefore it is possible; (for what is impossible may be admitted in argument, but cannot be supposed, being unintelligible;) therefore its existence is *not necessary*, which contradicts the supposition of its necessity.

948. Thirdly, to suppose two beings having exactly the same properties, so that it is impossible that one should have what the other has not, is to suppose that they differ in no respect whatsoever; therefore there is no ground for their distinction, therefore they are in reality *not two, but one.**

CHAPTER II.

OF THE DIVINE ATTRIBUTES.

949. The Divine attributes are such properties and dispositions as are inherent in his

* See 1 Leibn. 19.

nature,

nature, and neceſſarily inferable from it. They are either *abſolute*, as they exiſt independently of the exiſtence of any created being, ſuch as omniſcience, intelligence, wiſdom, omnipotence, liberty, and immutability; or *relative*, requiring for their exiſtence the exiſtence of other beings. Of the former I ſhall treat in the firſt ſection, and of the latin the ſecond.

950. We muſt remark, that we ſhould attribute to the Supreme Being every power and diſpoſition which we ourſelves eſteem laudable and advantageous, as they are all derived from him, and in him free from the imperfections that attend them in us, conſequently both the manner and degree in which he poſſeſſes them is infinitely ſuperior to that in which we poſſeſs them.

SECT. I.

OF THE ABSOLUTE ATTRIBUTES,

Omniſcience,

951. *Omniſcience* conſiſts in the knowledge of all things poſſible. All theſe may be brought

brought into exiſtence, and therefore all muſt be known. An immenſe number of ſpiritual ſubſtances, of different characters, receiving ſimilar ſenſations and ideas, or at leaſt capable of receiving them, have already been brought into exiſtence, and many more are ſtill future, which are as well known to the Supreme Being as the preſent, and the paſt as the preſent.

952. Of the future events ſome are *neceſſary*, being reſults from pre-eſtabliſhed laws, but ſome are *contingent*, being the free determinations of the human will, and depending ſolely on the agent, who is their author; for theſe, rational beings are accountable, entitled to reward or liable to puniſhment.

953. The determinations of the will can alone be deemed free, for the events or actions ſubſequent to theſe volitions neceſſarily reſult from the laws which regulate the power which the will exerciſes over its ideas, and the ſenſations which conſtitute the human body.

954. The neglect of diſtinguiſhing the volitions from the ſubſequent actions has occaſioned many miſtakes.

955. The difficulty of explaining how free volitions can be foreſeen is ſuch, that ſome philoſophers have denied ſuch foreknowledge, judging it incompatible with the freedom of determination; ſuch volitions being perfectly unconnected with any thing on which foreknowledge may be grounded. Others, ſenſible, both from reaſon and revelation, that future actions are foreſeen, deem the volitions, which are the occaſional cauſes of theſe actions, to be themſelves the neceſſary effects of antecedent cauſes, and as ſuch may be foreſeen.

Others, with whom I agree, allow the freedom of volitions, and deny its incompatibility with the foreknowledge of it by the Deity, though the mode in which this knowledge is acquired is inexplicable; for as it reſults from his eſſence, which is incomprehenſible, it can bear no analogy to our mode of acquiring any knowledge, and therefore is neceſſarily unknown. All that can be required from thoſe that acknowledge ſuch preſcience, is, to ſhew that it is neither incompatible with human liberty, nor impoſſible.

956. The truth of a propoſition does not require the actual exiſtence of its object. That

That Alexander vanquiſhed Darius is now true, though neither Alexander nor Darius now exiſt; in the ſame manner a propoſition announcing a future object, does not require the actual exiſtence of that object; all that its truth requires is, that the object ſhould exiſt in ſome ſubſequent period. It is quite equal, whether the exiſtence of the object be neceſſary or contingent; all that the verification of the propoſition requires, is, that the object predicted ſhould really happen. If it does, the prediction is neceſſarily true, though antecedently to its happening the object were contingent; thus a free volition may exiſt, though previouſly to its exiſtence it were contingent, that is, the agent had the power of not producing it, as well as the power of producing it.

957. In the ſame manner, the foreknowledge of God is equally infallible, whether its object be neceſſary or contingent: all that its infallibility requires, is, that the object ſhould *really* exiſt, as foreſeen. Hence the truth of this foreknowledge, that is, its correſpondence with the *real* exiſtence of the object, is neceſſary, though the object itſelf, previous to its actual exiſtence, be merely contingent. This

foreknowledge

foreknowledge does not in the leaſt affect the contingency of the object, that is, the power of the agent to produce it or not produce it, (for it is perfectly extrinſic to it,) no more than our view of objects before us interferes with their exiſtence; though we cannot reaſon from our actual ſight to God's foreſight; for an object actually ſeen neceſſarily exiſts, otherwiſe it could not be ſeen; but an object foreſeen does not exiſt, and therefore its future exiſtence, though certain, is not neceſſary, as the agent, previous to its exiſtence, has the power of not producing it.

958. By attending to theſe principles we may extricate ourſelves from that labyrinth of difficulties which many think inſuperable; the moſt embarraſſing of theſe are perhaps the following.

959. If a free agent has the power of abſtaining from the commiſſion of an action, which it is foreſeen he will commit, he muſt have the power of deceiving the Divine preſcience, for if he does abſtain from that action he actually falſifies it; therefore, if he has the power of abſtaining from it, he has the power of falſifying it.

960.

960. To this I anſwer, that the power of deceiving the Divine preſcience is not involved in the power of abſtaining from the action foreſeen, and therefore, though the agent ſhould really abſtain from it, he would undoubtedly falſify the Divine preſcience; yet his having the power of abſtaining from the action, is not equivalent to his having the power of falſifying the Divine foreknowledge; for when we ſuppoſe that the action will *really* happen, we cannot at the ſame time ſuppoſe, that it will not happen, for that would involve a contradiction, namely, that it would happen, and yet not happen; now what cannot even be ſuppoſed is impoſſible; and ſince the ſuppoſition of its being foreſeen, includes the ſuppoſition of its happening, the ſuppoſition of its not happening being contradictory thereto is inadmiſſible, and therefore the falſification of the Divine preſcience is impoſſible, though the agent has the power of abſtaining from the action; for it is ſuppoſed that he will not exerciſe that power.

916. Some have ſaid, that truth being a relation, it muſt, like every other relation, have

have a determinate foundation; but future contingent objects afford no determinate foundation upon which a relation can be grounded, as they are totally unconnected with any cauſe whoſe connexion with them could afford a foundation for the truth of the propoſitions that announce them; therefore no propoſition concerning them can be true.

962. But it is anſwered, that propoſitions announcing a future object require no foundation for their truth previous to the exiſtence of their object; if the object exiſts at the time they predict its exiſtence, that is ſufficient to render them true; the foundation of their relation being no other than the *reality* of the future exiſtence of their object, they are true before the object exiſts, becauſe it will *infallibly* exiſt. Note, the propoſitions here mentioned are ſuppoſed to be ſingular, one of which muſt be true and the other falſe. For univerſal or particular propoſitions announcing a future contingent object may be falſe.

Of the Divine Intelligence and Wiſdom.

963. *Intelligence* conſiſts in the knowledge

of all the poſſible arrangements of beings and their modifications.

964. *Wiſdom* conſiſts in the choice of the beſt poſſible arrangement, or at leaſt of one of the beſt arrangements. By *beſt*, I underſtand that moſt ſuited to the moſt approved deſign.

965. That we muſt aſcribe both theſe properties to the Supreme Being, is evident, from the contrivance and mechaniſm of the univerſe, as far as we are acquainted with it, upon paying any attention to its ſtructure; and the more minutely it is conſidered, the more proofs of theſe attributes are diſcovered. See Paley's Natural Theology throughout.

Of the Divine Omnipotence.

966. The power of the Supreme Being is evident, ſince he being the only ſelf-exiſtent Being, all other beings muſt have been created by him, all their powers derived from him, and regulated by his laws; and as his power relates to all *poſſible* things, we muſt deem it boundleſs, that is, infinite.

967. With reſpect to this power two important queſtions have occurred; Firſt, whether

ther the power of creation can be communicated by the Supreme Being to any other created being? and, ſecondly, whether the whole ſyſtem of created beings be the moſt perfect, or one of the moſt perfect poſſible?

968. As to the firſt queſtion, ſome think that a creative power may be beſtowed on other beings, becauſe they diſcern no repugnancy in the communication of ſuch power.

969. Yet it appears to me, that this power is incommunicable to any creature; Firſt, becauſe it is the greateſt that the Supreme Being himſelf poſſeſſes; namely, that another being ſhould exiſt, merely becauſe he wills it to exiſt; or that it ſhould ceaſe to exiſt, becauſe he wills it ſhould ſo ceaſe. The connexion betwixt his will and the exiſtence of another being is intelligible, becauſe he is omnipotent; but the connexion betwixt the will of a being that is not omnipotent, and the exiſtence of another being, is unintelligible; and if any connexion be eſtabliſhed between them, as it may, the will of the created being is only the occaſional, and not the efficient cauſe of the being he wills to exiſt. I ſay occaſional, not *inſtrumental*, for creation is

not a mechanical operation that requires an inſtrument.

970. As well might the power of creating all beings, or omniſcience, be communicated, and thus a perfect, equality with the Supreme Being in thoſe reſpects exiſt, which ſeems as impoſſible as the plurality of gods.

971. The ſecond queſtion, namely whether the preſent ſyſtem of created beings be one of the moſt perfect poſſible, is perhaps one of the moſt important that ever occupied the attention of mankind. If decided in the affirmative, its reſolution will afford a complete anſwer to the moſt perplexing difficulty that occurs in Natural Theology; namely, why evil is admitted into his creation, by a Being infinitely wiſe, infinitely good, and infinitely powerful; for if the preſent ſyſtem be the moſt perfect poſſible, or at leaſt one of the moſt perfect, then, ſince evil is evidently included in it, its admiſſion muſt contribute to its perfection, and therefore could not be excluded, without detracting from the perfection of the ſyſtem, and all that can be required is, that its quantity be the ſmalleſt compatible with the perfection of the ſyſtem.

972. But if this queſtion be decided in the negative, (as it is by many) then no ſatisfactory cauſe for the admiſſion of evil can be aſſigned: its exiſtence, and that of theſe attributes, cannot be reconciled, as Bayle ſeems to me to have proved beyond contradiction. The anſwers made to him, even by Leibnitz, appear unſatisfactory.* Its exiſtence is commonly ſaid to be a myſtery, but that it exiſts cannot be denied; it is therefore the exiſtence of the Divine attributes that in this hypotheſis is rendered myſterious, or rather impoſſible; for if theſe are irreconcilable to evident evils, they cannot exiſt together in the ſame ſyſtem.

973. Before we enter on the merits of this great queſtion, and demonſtrate the perfect agreement of theſe attributes with the exiſtence of evil, other queſtions ſtill more general, but leading to its ſolution, muſt firſt be examined. Firſt, why God has beſtowed exiſtence on any other beings?

* See Theodicea, N° 118, 119, 120, 121, 122. 133, 134. 161, 162. 236, 237. 266. Paley, 527. Doddridge's Lectures, p. 184.

Secondly, was he free to beſtow it, or not beſtow it, at his pleaſure?

Thirdly, did, or do, all poſſible beings poſſeſs the ſame characters?

Fourthly, ſhall all created beings be finally ſo happy as to prefer exiſtence to non-exiſtence?

974. In anſwer to the firſt queſtion, ſome* have aſſerted, that God acts without any motive, but merely becauſe ſuch is his pleaſure. Such conduct, however, rather befitting a fool, a tyrant, or a madman, it would be impious to aſcribe to the wiſeſt of all beings.

975. Others ſay, that God created the univerſe for his own glory; a motive infinitely too feeble to effect a being ſo far exalted above his creatures, of whatever rank they may be. A motive of that ſort may be uſeful to mankind, as it ſtimulates them to actions advantageous to ſociety, but is unworthy of a being ſo much ſuperior to all thoſe from whom he could receive it; and though it is commonly ſaid, that the world was made for the glory of God, yet as Abp. King juſtly remarks, this

* 1 Hook, Princip. Reb. Natur. 328.

is

is ſaid *humano more*, and is attributed to God as *anger*, *revenge*, *eyes*, and *hands*, are attributed to God.* Sooner, as Balgui remarks,† "might an angel propoſe to himſelf the homage of a worm; when we are required "to glorify him, it is partly becauſe it is right "and good in itſelf, and therefore morally "good; and partly becauſe it is eſſential to "our own happineſs."

976. Others endeavour to perſuade us that God created all beings for the manifeſtation of his own attributes; but this differs in nothing from the laſt-mentioned motive, for it is only from the manifeſtation of his attributes that glory can ariſe.

977. The only adequate motive that can be aſſigned for the creation of our ſyſtem, by a Being whoſe happineſs is perfectly independent of its exiſtence, is the communication of happineſs to all the creatures capable of receiving it. In effecting this moſt adorable purpoſe his power, his goodneſs, and his wiſdom, are diſplayed in the manner moſt worthy of his

* King on the Origin of Evil, p. 54. † Tracts, 221.

Supreme perfection.* This is not contradicted by revelation: the paſſage in Proverbs xvi. 4. is ſhewn by Dathius to be falſely tranſlated; it ſhould be *God procures all things for his adorers.*

978. In anſwer to the ſecond queſtion we muſt obſerve, that a being is free, who is impelled by no preponderating motive either to will or not will effecting a given action: ſuch freedom the Supreme Being poſſeſſed when he willed the exiſtence of other beings: his happineſs being independent of their exiſtence, could receive no addition from theirs; his goodneſs alone induced him to ſeek it: but this motive could not neceſſitate him to procure it, it being counterbalanced by the knowledge that his own could receive no increaſe from it; yet he cannot be ſaid to have acted without a motive, as the happineſs of his creatures was a ſufficient though not a preponderating motive, and conſequently could not detract from his freedom.

979. With reſpect to the third queſtion, we may infer from daily experience, as well as from all hiſtory, that no two individuals of

‡ Smith's Moral Sentiments, Part III. chap. III. p. 237. Aquinas, 1 P. Quest. 44. Art. 4.

the

the human ſpecies have exactly the ſame mental temper, diſpoſition, and character, any more than exactly the ſame features and countenance: they differ from each other, and approach more or leſs to the perfectly virtuous or extremely vicious by infinite gradations. Theſe diſpoſitions are inherent in their nature, and form what is called the principle of their individuation; but they are not ſo eſſential as to be abſolutely unchangeable and unimproveable. All that exiſt are more or leſs amendable. Many characters are undoubtedly poſſible that are abſolutely incorrigible, but theſe I think are never brought into exiſtence, as they would neceſſarily be permanently unhappy.

980. It were vain to ſay that God might make all men or other beings equally perfect or equally corrigible; he undoubtedly may create an indefinite number of ſuch beings, but theſe would not compriſe all poſſible men or other beings; thoſe that are corrigible in various degrees would ſtill remain poſſible, quite diſtinct and different from the former; and with ſuch intelligent beings as theſe we actually find this globe peopled.

981.

981. The fourth queſtion muſt in my opinion be anſwered in the affirmative, for it ſeems unworthy of the Supreme Being, and inconſiſtent with his goodneſs, juſtice, and wiſdom, to beſtow exiſtence on beings who are to be eternally miſerable, and to whom exiſtence muſt conſequently be eternally a curſe. It is indeed commonly ſaid, that they are themſelves the authors of their own miſery; but this does not leſſen the inconſiſtence of its never-ending duration with his paternal and infinite goodneſs, ſince their exiſtence was no way neceſſary, and it was foreſeen that it would terminate in endleſs miſery; nor with juſtice, ſince they could not obtain exiſtence upon thoſe terms, but if poſſible to be propoſed to them, would certainly refuſe it; nor with infinite wiſdom, ſince their miſery would be abſolutely uſeleſs, both to themſelves and to their Maker.

982. Hence it appears to me, that all intelligent beings brought into exiſtence, and having diſpoſitions more or leſs difficultly amendable, will finally be rendered more perfect; their moral diſpoſitions amended and brought into ſuch a ſtate of happineſs as their

their reſpective natures are capable of receiving.*

983. We now come to the ſolution of the principal queſtion, namely, how it happens that evil is not excluded from his creation by a Being of infinite power, goodneſs, and wiſdom; for, ſuppoſing this ſyſtem to be the *beſt*, or one of the beſt poſſible, yet ſuppoſing this world to be peopled, as we find it to be, by free and imperfect intelligent agents, evil could by no poſſibility be excluded from it. For if it were peopled only by beings that require no amendment (and other globes may poſſibly be ſo) then beings more imperfect ſhould be ſuppoſed impoſſible, which appears evidently unreaſonable, as in this hypotheſis numberleſs beings capable of happineſs would eternally be excluded from it.

984. To ſhew the impoſſibility of this excluſion more diſtinctly, we muſt ſtate the different heads to which all are reducible. Theſe are evils of natural imperfection, called *metaphyſical* evils, *phyſical* evils, and *moral* evils.

985. *Evils of imperfection* are eſſentially inherent in all creatures; for not being capable

* See Hartley on Man, Part II. chap. iv. ſec. 5.

of

of infinite perfection, they muſt always remain imperfect, relatively to ſuperior degrees of it; the degrees of imperfection muſt be various; all corrigible beings muſt belong to this claſs.

986. *Phyſical evils* are all reducible to *pain*, whether of body or of mind. Such intelligent beings as inhabit this globe being all ſuppoſed corrigible, muſt be more or leſs imperfect, otherwiſe they would require no amendment; now the principal means of their improvement is the endurance of pain, whether corporeal or merely mental; a being who ſupports it with reſignation, from a conſciouſneſs of his duty ſo to do; who ſuppreſſes the impatience, vexation, and frequently the anger, indignation, grief, dejection or deſpair, it tends to excite, neceſſarily becomes an object of approbation in a higher degree than he could be previous to ſuch diſcipline, or in other words acquires a higher degree of perfection. Thus the endurance of pain is a neceſſary ingredient in the practice of virtue, and the practice of virtue being the path of amendment, hence the neceſſity of pain.*

* Stewart's Outlines, ſec. 277. 284.

987. As the patient endurance of *pain* in the performance of duty, is the eſſence of moral perfection, ſo its avoidance, when its endurance is a duty, or the inordinate acquiſition of its oppoſite *pleaſure*, forms the eſſence of moral imperfection or turpitude; to abſtain from this, when ſtrongly coveted and ſuch reſtraint is a duty, muſt be conſidered as a grievous pain.

988. To avoid the pain of reflexion, the generality of mankind neglect inquiring into the duty they owe to the Supreme Being; they reſt ſatisfied with their parental and national inſtitutions: hence the criminality of polytheiſm, idolatry, and ſuperſtition, is derived.

989. In the diſtribution of pain, whether of body or mind, we generally diſcover traces of the moſt profound wiſdom; it is the almoſt inevitable conſequence of intemperance; and, whatever outward appearances may ſuggeſt, the inexorable attendant of crimes and vices, and frequently of folly. Its manifeſtation ſerves alſo to deter others from ſimilar miſconduct.

990. To the doctrine here advanced many objections

objections have been made; First, it has been ſaid, that the infliction of pain frequently fails of effecting that amendment, for the production of which we have ſaid it was deſigned. This cannot be denied, as far as relates to the preſent ſtate of our exiſtence; but ſince our duration is not limitted to the preſent ſtate, ſince we ſee that in this ſtate amelioration of temper and character frequently reſults from the diſcipline of pain, have we not reaſon to think, that its infliction continued in the next life, and probably increaſed, will at laſt be attended with its proper effect, and make even the moſt obdurate ſenſible, that the abandonment of vice, and the practice of virtue, can alone procure and eſtabliſh their happineſs. Nor ought we to ſuppoſe that if this doctrine were true it would have been revealed, for its revelation would infallibly lead many to defer their reformation to a future period of whoſe miſery they can form no idea, and thus be productive of miſchief: mankind at the different periods in which revelations were communicated, was not ſufficiently enlightened to receive truth in its full extent.

991. Again, we are told, that brute animals,

mals, though incapable of any moral action, and conſequently of any change, amendment, or moral reformation, are nevertheleſs ſubjected to pain; conſequently moral reformation cannot be the purpoſe of its infliction, nor afford a reaſon for its exiſtence.

992. This train of reaſoning is grounded on the ſuppoſed certainty, that theſe animals really ſuffer pain, and are capable of perception and paſſions; in attributing perception to them, we argue ſolely from analogy in contradiction to the moſt evident principles; but I appeal to every impartial mind, whether this analogy be not by far too feeble to ſupport a concluſion attended with inextricable difficulties: does it not argue the moſt extravagant preſumption to aſſert, that the Divine omnipotence cannot form machines capable of performing all thoſe actions from which we conclude them to poſſeſs intelligence? I ſay intelligence, for if we allow them perception, we muſt allow them abſtract notions and reaſoning to a certain degree;* and if ſuch machines be poſſible, why ſhould we not conclude them to exiſt, rather than contradict the

* Cooper's Tracts, p. 233, &c. Norgate's Eſſays, p. 28.

primary

primary maxim of natural religion, that *under a juſt God it is impoſſible an innocent being ſhould ſuffer without any reaſon or compenſation*, which muſt be the caſe of brutes, to which we deny a future life, and thus furniſh materialiſts with their ſtrongeſt argument? The ſame analogy that leads us to attribute perception to the more perfect animals, whoſe ſtructure moſt reſembles our own, would equally lead us to attribute it to inſects, whoſe internal ſtructure differs moſt from our own, and even to microſcopic animalculæ; nay, it has induced many to attribute it to vegetables: thus alſo the motions of the planets were antiently attributed to preſiding ſpirits, and thus moſt probably idolatry originated; thus, while attending to mere ſenſible appearances, other intellectual and much ſtronger principles of reaſon are neglected or rejected: no ſort of folly is too groſs to be credited.

993. Laſtly, if it be true, that the puniſhment to be inflicted in the next life for crimes committed in this, are never to end, it is evident that pain is not admitted into our ſyſtem merely for the purpoſe of correction and amelioration, but principally for the purpoſe of producing

producing endleſs miſery. A purpoſe ſo repugnant to infinite goodneſs, as the production of infinite miſery, and to infinite wiſdom, as the infliction of miſery which muſt be uſeleſs, (ſince it is ſuppoſed to work no reformation in thoſe who ſuffer it, and cannot by its example tend to reform others, ſince it is inviſible;) and to infinite juſtice, ſince it is ſuppoſed inflicted on thoſe who could not have the choice of receiving exiſtence with the chance of being expoſed to it, cannot ſurely be credited; and in effect the conduct of thoſe who pretend to believe it, evidently ſhews they do not in reality credit it. "Juſtice conſiſts in "the conſtant and immutable will to diſ-"penſe to every one that which beſt cor-"reſponds with his moral ſtate; its exerciſe "will therefore be varied with the diverſified "ſituations in which its objects are placed, "and the different characters they bear; the "evils of the preſent life are univerſally al-"lowed to be intended for correction and "amelioration; if the object of future "puniſhments be different from this, if they "have no other end but the miſery of the "ſinner, all analogy is loſt, the nature of

" man muſt be changed, and he muſt be-
" come for ever incapable of repentance and
" amendment; and who renders him ſo?
" God; God proved to be infinitely good,
" yet good only for a moment, but eter-
" nally implacable; it is ſovereignly impro-
" bable, that the mere circumſtance of time
" ſhould be attended with ſuch a revolution
" in the character of man or the conduct
" of God."* It is impoſſible that God ſhould be *infinitely* implacable, and only *finitely* merciful, when his mercy is expreſsly declared to be above all his works. Pſalm cxliv. 9.

994. But it is ſaid, that the enormity of every offence increaſes with the dignity of the perſon offended: as ſin is an offence againſt the infinite majeſty of God, its malignity muſt be infinite, and therefore deſerves infinite puniſhment. This argument is in every reſpect fallacious, being grounded only on what takes place in human offences; among men, the higher the dignity of the perſon offended above the offender, the more he is hurt, and the keener the reſentment he feels, or at leaſt others feel for him; for if he is magnanimous,

* See Petitpierre, in the Analytic Review for Oct. 1788.

he

he will feel no other ſentiment but indifference or contempt; but the Supreme Being is incapable of being hurt by any offence, and can poſſibly feel no reſentment, as this is eſſentially a painful ſenſation.* Beſides, the greateſt offenders ſcarce ever think of God, while committing their crimes, and have no direct intention of offending him. Moreover, if this reaſoning were juſt, even the moſt trifling tranſgreſſions would deſerve infinite puniſhment, which is too abſurd to be credited.

995. Nor is revelation ſo favourable to the oppoſite doctrine as at firſt ſight it would appear to be; *eternal* puniſhments are indeed denounced, but the word eternal does not always in the Scriptures ſignify *endleſs*, but frequently an indefinite duration. See Wakefield's Notes on Matthew, p. 358. And Burnet de Statu Mort. and Reſurg. 246. It is applied to things which we are expreſsly told will have an end. Thus the kingdom of Chriſt will, it is ſaid, be *eternal*, Dan. vii. 13, 14; and yet we are expreſsly informed, 1 Corinth. xv. 24, that it ſhall have an end.

* Leib. ſec. 114.

But it is aſſerted that ſince in Matth. xxv. 46, the word *eternal* denotes the endleſs happineſs of the juſt, it muſt in the ſame ſentence be taken in the ſame ſenſe, when applied to the puniſhment of the wicked. Yet this is not a neceſſary conſequence, for, to ſay nothing of the reaſons for taking it in a different ſenſe, in the ſentence of condemnation, nothing is more common in the Scriptures than employing the ſame word in different ſenſes in the ſame ſentence; this licence is by grammarians called *antaclaſis*, or *refraction*, and many examples of it are given by Glaſſius, p. 959. Grotius mentions it, 1 Corinth. viii. 3. Quintilian explains it, Inſtit. Orat. ix. 3. And on the contrary we are told, Pſalm cii. 9. that God keepeth not his anger for ever, and that in judgment he remembereth mercy. In Daniel ii. 44, we have a perfect antaclaſis, for in the preceding verſes, *kingdom* denotes an earthly kingdom, but in the 44th a *ſpiritual*.

996. *The origin of moral evil* is clearly deducible from the free agency of man; conſidering him as a perfectible being, deriving improvement from his own exertions, he muſt have the power while acting conformably to the

the ſuggeſtions of his duty, to act alſo in contradiction to them; if either alternative were equally eaſy, no difficulty could be overcome; conſequently no virtue practiſed, and no merit acquired; hence the preſent ſtate of man, in which he is ſolicited by various allurements to deviate from his duty, or obliged to ſtruggle with various difficulties in its performance, was abſolutely neceſſary for his advancement in perfection and amendment of character. Now wilful deviation from a known duty, conſtitutes the very eſſence of moral evil; the poſſibility then of ſuch evil, or rather liability to it, was preordained, but not its actual exiſtence; this is barely permitted, as the indubitable conſequence of freedom of action; for in any ſtate in which imperfect, but amendable beings could be placed, amendable by overcoming difficulties in the acquiſition of rectitude, deviations from it muſt be expected, and therefore permitted; all that Supreme wiſdom can effect, is to place ſuch beings in that ſtate, in which, freedom being ſtill preſerved, the ſum of the reſulting evils is ſmalleſt, the quantity of moral improvement greateſt, and in which, as far as poſſible, evil

is made to contribute to the production of good. Now that this is the caſe in our ſyſtem, we have reaſon to preſume, and can even in many inſtances prove: hence we cannot ſay as ſome have unwiſely ſaid, that *whatever is, is right*; on the contrary *much of what is, is wrong*; but we may well ſay, that the *permiſſion of whatever is, is right:* evil is indeed rendered productive of good, and one evil frequently ſerves to correct another, or even to prevent a greater; but it is ſtill evil, for it would be ſtill better if men would ſo uſe their liberty, as that no evil at all ſhould exiſt.

A ſuccinct, but beautiful view of the reaſons why evil is admitted is given by Hook, in his Principia Religionis Naturalis, vol. I. p. 292, which I ſhall here annex.

" Sed ſunt etiam mala; at qualia? Quæ
" non in ipſa rerum machinatione deſtinata
" videntur tanquam ipſius finis proprius:
" verùm ex materiæ imbecillitate, inferio-
" rum agentium errore, eveniunt juxta eas
" leges, quæ omninò ſunt utiles, & neceſ-
" ſariæ. Mala ſunt; ſed ſine quibus nullæ
" eſſent leges generales; quæ leges tamen
" neceſſariæ

" neceſſariæ ſunt, ut locus ſit conſilio, pru-
" dentiæ & induſtriæ, ut homines rationes
" ſuas poſſint inſtituere & ex certis actionibus
" certos ſibi polliceri effectus & conſequen-
" tias. Mala ſunt; at ſine quibus abeſſent
" commiſeratio, beneficentia, liberalitas, for-
" titudo, æquanimitas, patientia, lenitas; &
" officia omnia gratuita, quorum ſenſus longè
" eſt omnium lætiſſimus & memoria jucun-
" diſſima. Quis omnem ſublatum vellet do-
" lorem quo de pravo corporis habitu admon-
" emur, aut laborem, ad ſanitatem & vires
" corporis animique tam neceſſarium? Quis
" contra naturæ ſtudia tantùm obduruit, ut
" illos ſenſus noſtros, licet moleſtiam quan-
" doque ferant, vituperet, quibus aliorum in-
" fortunia deploramus, quibuſque ad opem
" ærumnoſis ferendam incitamur; aut illum
" animi morſum ſive angorem, quo elidimur
" ex criminum noſtrorum aut culparum con-
" ſcientia; & quem vitiorum medicinam eſſe
" voluit benignus Deus? Mala ſunt; ſed non
" totum rerum ordinem cogitatione com-
" plectitur humana mens. Exigua eſt hæc
" mundi pars, quan cernimus, & pro brevi
" temporis ſpatio; ſi plurima ergo in hoc

" ævo mala magnas afferre videamus utili-
" tates, ſcill. quod hominum ſcelera ſæpiſ-
" ſiſmè cohibeant & impediant, proborum
" virtutes exerceant & augeant; hominum
" mentes à rebus externis & vilioribus volup-
" tatibus ad interna & vera bona convertant;
" hinc certé fit veriſimillimum, ea etiam
" mala (ſiqua ſint) quorum nullum nunc cer-
" nimus uſum, ad totius ſyſtematis in par-
" tibus à nobis remotioribus aut ſeculorum
" futurorum felicitatem & perfectionem ſu-
" iſſe deſtinata: ex üs certe neutiquam ef-
" ficitur mundi adminiſtrationem eſſe invi-
" dam aut malignam."

Of the Divine Liberty.

997. *Freedom from conſtraint* being the natural conſequence of perfect independence muſt naturally belong to the Supreme Being; ſo alſo muſt freedom, from a neceſſity ariſing from his own nature, if his happineſs be complete, independently of any exertion of his power; and this we muſt judge it to be, otherwiſe the exiſtence of created beings would be as neceſſary as his own, and equally eternal,

eternal; as in that caſe the exigency of his nature would eternally require their exiſtence. Now the ſuppoſition of their eternal exiſtence evidently involves an impoſſibilty; for creation being the production of a being from nothing, an inſtant muſt be ſuppoſed in which it did not exiſt, therefore it cannot be ſaid to have had no commencement, nor conſequently to have been eternal.

998. It may be objected, that the determination to create being eternal, it cannot be ſaid to have ever been free, as no inſtant can be imagined in which it did not exiſt; but it is anſwered, by allowing that the objection clearly diſproves the pre-exiſtence of freedom as a *ſtate* preceding election, but not its exiſtence as a *mode* eternally accompanying election and inherent therein: in this reſpect Divine liberty differs from human; for among men, freedom and frequently ſuſpenſe precede a free determination, but do not accompany it.

Of the Divine Immutability.

999. The immutability of the Supreme Being

Being conſiſts, firſt, in the impoſſibility of his receiving or effecting any change in his eſſence; ſecondly, in the *certainty* that his deſigns, though not unalterable, will nevertheleſs be never altered: it is grounded on the extreme perfection and independence of his nature, and on the excellence of the choice he has already made. His decrees, however, as far as they are ſtill executory, having been freely paſſed, are ſtill free; for no paſt inſtant is aſſignable in which they were neceſſary, and conſequently they are ſtill alterable, though it is certain they will never be altered; juſt as future contingent events will certainly happen, though it be always poſſible, antecedently to their happening, that they will not happen, otherwiſe they would not be contingent, but neceſſary.

1000. Though men may be at one time objects of Divine favour, and at another time of puniſhment, this argues no change in the Divine decrees, as theſe decrees relating to different times eternally co-exiſted.

1001. Hence prayers are not uſeleſs; for if their object be compatible with a ſuperior advantage to that which they demand, we may expect

expect from the Divine benignity that regard was had to them in the decree for the original arrangement of all events.

SECT. II.

OF THE MORAL ATTRIBUTES OF THE SUPREME BEING.

1002. Under this name we comprehend the diſpoſitions of the Supreme Being towards his creatures: chiefly his goodneſs and juſtice.

1003. Theſe attributes are ſuch diſpoſitions as we find and approve of in ourſelves, removing from them all that ſprings from the imperfection of our nature, and extending them to the degree ſuited to his nature; that is, to infinity.

1004. *Divine goodneſs*, ſimply conſidered, conſiſts in the diſpoſition, or the actual communication of happineſs; or, if the nature of the creatures require it, in affording them the means of acquiring it.

1005. To ſeek for proofs that this diſpoſition exiſts in God, is perfectly idle, as not a ſingle

ſingle pleaſing ſenſation or ſentiment can exiſt in our minds which we do not entirely owe to his benificence; it is only through the laws he has gratuitouſly eſtabliſhed, that we can obtain any; of ourſelves we can procure none. Why evil of any kind was permitted to exiſt, we have already ſhewn, N° 979, 980. 983, &c.

1006. It is ſaid, that human life is attended with far more pain than pleaſure: if it were ſo, I would not think ſuch a ſtate inexplicable, on the grounds already mentioned. A ſtate of abſolute happineſs is incompatible with a ſtate of probation: but I am inclined to think, that if all our moderate pleaſures were balanced with the *inevitable* pains or uneaſineſs we endure, they would be found to outweigh them.

1007. Much of our uneaſineſs proceeds from compariſons with thoſe whom we ignorantly ſuppoſe in a happier ſtate; whereas a perfect compenſation, both in pain and pleaſure, in the different ranks of human life, generally takes place; and of thoſe whom we ſuppoſe happier than ourſelves, many are far more miſerable. See Jenyns on Evil, p. 24. Paley's Natural

Natural Theology, Chap. 26. Stew. Outlines, 287.

1008. As *love* conſiſts in willing the happineſs of the perſon loved, we muſt infer that God loves his creatures in the full and exact ſenſe of the word.

1009. *Hatred* cannot exiſt in God, for it implies a pleaſure in the ſuffering of the perſon hated; a pleaſure inconſiſtent with the divine perfection, and with the love which God bears to his creatures: conſequently *anger*, *revenge*, and other paſſions of the malignant kind, are aſcribed to God only metaphorically; as his puniſhments, though in reality deſigned for the good of the ſufferers, like parental chaſtiſements, bear ſome reſemblance to the effects thoſe paſſions tend to produce.

1010. Even *pity*, or *compaſſion*, well defined by Dr. Cogan a benevolent ſorrow at the ſufferings of another, cannot exactly exiſt in the Divine mind, but merely analogically, including all that it implies of amiability, and excluding only every degree of pain.

1011. *Mercy*, as Dr. Cogan well remarks, is the moſt exalted branch of compaſſion; it particularly refers to that ſtate of mind which induces

induces us to exerciſe our benevolence upon perſons whoſe fate is at our diſpoſal; it induces us to relinquiſh demands which, if enforced to the utmoſt, would render us the immediate agents of miſery: it is peculiarly applicable to unworthy or criminal behaviour to ourſelves, which would involve the offender in diſtreſs, were we to be tenacious of our rights; in a word, it is that dignified compaſſion, which induces us to ſuppreſs reſentment, to pardon offences, or mitigate puniſhment as far as diſcretion may admit. The high approbation which we feel of this diſpoſition, induces us to aſcribe it to the Supreme Being, though he is incapable of reſentment, and of receiving any offence. In him it conſiſts in placing the trangreſſor in circumſtances favourable to his amendment, inſpiring him with ſentiments fitted to promote it, and inflicting the puniſhment moſt likely to effect it, or omitting any for a certain time.

1012. Hence *forgiveneſs*, in the proper ſenſe of the word (which is a pardon or remittance of the puniſhment due to offences) cannot be attributed to God; but, as he acts in the ſame manner as men o when they pardon offences,

it

it is by analogy aſcribed to him; for language being formed to expreſs human ſentiments, the ſame terms are neceſſarily employed where the effects are ſimilar to thoſe which thoſe ſentiments exact or produce. By *repentance* men place themſelves in a new ſituation, and do not require thoſe puniſhments which their amendment would otherwiſe call for; yet they may ſtill be ſubjected to pain, as a means of improvement in virtue and advancement in perfection.

Divine Juſtice.

1013. Of *juſtice* in general a definition has been given, N° 909; of its various branches, the remunerative, preventive, and corrective are neceſſarily attributed to the Supreme Being; for as they imply no imperfection, and their exerciſe, even by earthly ſovereigns, meets our higheſt approbation, we muſt conclude, that the Sovereign of the univerſe, the moſt perfect of all Beings, exerciſes them in the moſt perfect manner; and in fact juſtice is nothing more than goodneſs, under the direction of wiſdom.

1014. Hence, even in this life, for the encouragement

couragement of virtue, and the diſcourage ment of vice, each virtue meets with it proper reward, and each vice with its proper puniſhment; thus temperance is rewarded by health; juſtice by confidence, credit and eſteem; humanity, liberality, and generoſity with love, regard, and frequently with ample recompence: and, on the contrary, fraud, falſehood, and brutality, meet with ſcorn and abhorrence; the more atrocious crimes ſcarce ever eſcape legal penalties.

1015. Even delinquencies of a nature to evade human laws, or committed by thoſe who are above their reach, never fail of receiving an adequate requital, though not always viſibly, in mental anguiſh, and the horrors of remorſe; the ſufferings of many have been ſo dreadful as to compel them to end them with their lives; they are well depicted by Tiberius, in his letter to the Roman ſenate, and were evidently experienced by thoſe moral monſters Nero, Domitian, Elizabeth, Cromwell, Philip the IIId. and many more.

1016. But *vindictive juſtice* cannot with propriety be aſcribed to the Supreme Being: it proceeds from reſentment, and conſiſts in the

the malignant ſatisfaction of retaliating on the offender the pain he has given to the offended. Now of reſentment, or feeling any pain, God is totally incapable; conſequently the ſentiments which men feel on ſuch occaſions, and the moral fitneſs of puniſhment for the gratification of reſentment, exiſts only with reſpect to them, but cannot with any appearance of reaſon be deemed to take place with reſpect to a Being who is incapable of being either offended or injured, in the proper ſenſe of thoſe words, as all muſt confeſs.

1017. Nor can ſuch puniſhment be requiſite, as ſome pretend, for the purpoſe of government, ſince puniſhment in that preciſe view is at preſent inviſible; as far as it is viſible, it is with much more propriety attributable to the purpoſes of correction, diſcipline, or example.

1018. *Vivacity* in his revelations, and *fidelity* in performing his promiſes, may be conſidered as branches of juſtice, and meet with our higheſt approbation; they are therefore neceſſarily aſcribed to the Supreme Being But fidelity in executing his menaces, where their

execution can with propriety be diſpenſed with, is incompatible with his mercy.

CHAPTER III.

OF DIVINE PROVIDENCE.

1019. By providence I underſtand the original arrangement of events, partly ordained and partly permitted, by the Supreme Being, for the purpoſe of producing the greateſt poſſible quantity of moral and phyſical good.

1020. This arrangement is maintained and effected by the immediate agency of the Supreme Being himſelf, either ſingly or in cooperation with the powers he has granted to free agents.

1021. This agency is carried on by general laws, which univerſally take place; ſuch as thoſe of gravitation, coheſion, elaſticity percuſſion, &c.: independently of the certainty of their efficiency, ariſing from their conſtancy, men would not know how to act, on any occaſion; no arts or ſciences could exiſt. The conſtancy of the effects produced is therefore

fore a full proof of the exiſtence of thoſe laws, even where the detail of their operation cannot be exactly traced; in conſequence of theſe, we find the ſame inclinations, paſſions, and intelligence, though with much variation of degree, in far the greater part of the human ſpecies, when placed in ſimilar circumſtances; and the ſame modes of action in animals and vegetables, varied and modified by the peculiarities of their different ſpecies.

1022. As prayer often apparently tends to obſtruct or counteract the operation of theſe laws, theologians have been much embarraſſed in endeavouring to reconcile its efficacy with their immutability. Some have ſuppoſed the interference of unembodied ſpirits;* a ſcheme evidently too wild and romantic to gain any credit: others have imagined the interference of e cret influences on the minds of men, on particular occaſions, which induce them to alter the line of conduct they would otherwiſe follow;† and even grant, contrary to the experience of mankind, that even the

* 5 Search, 124. Price, Differt. 80.

† Ibid, 13. 15. 63. 77.

efficacy of natural cauſes may be altered or ſuſpended by prayer.* The only argument which the ableſt aſſertor of thoſe influences adduces, is, that we are ignorant of the manner in which ideas ariſe in our minds, and of the cauſes on which the ſucceſſion of them depends, yet both depend on general laws, particularly on thoſe of aſſociation, well explained by Hume, and Mr. Dugald Stewart, p. 278, in 8vo. See alſo ante, chap. v. ſec. 4.

1023. The exiſtence of ſuch occaſional influences, of which we are not conſcious, ſeem to me for that reaſon purely fictitious and being contrary to the common courſe of nature, did they exiſt, muſt be thought miraculous. If any one could ſucceed in proving the exiſtence of ſuch influences, certainly it was that moſt diſcerning of all metaphyſicians, Biſhop Berkeley, who attempts to account for that particular influence called *grace*. He contends, that as we allow the exiſtence of *force*, though we cannot form any idea of it, we ſhould not deny the exiſtence of grace, though we can form no idea of it But in this caſe he was evidently biaſſed by

* 5 Search, 207. 219.

the

the prejudices of his profeſſion. The late excellent Dr. Prieſtley, much freer from all prejudice (though unfortunately ſtill retaining a Calviniſtic feature, as appears by his Eſſay on Neceſſity) has clearly ſhewn, in his ſermon on Divine Influence, that it has no foundation in the Holy Scripture; and that the doctrine that admits it is pregnant with much miſchief.

1024. Beſides, though we have no idea of force, yet we have a notion of it, for it means no more than the degree in which power is applied. Berkeley, in this particular point, is well refuted, even by a much inferior metaphyſician, Lord Bolingbroke. He thinks, and not very improperly, that "the word "*force* ſerves as a ſign of the unknown cauſes "of the phænomena both of nature and of "art. When we employ the word alone, "it is of very vague ſignification, and im- "ports nothing but ſome determining power, "either intellectual or corporeal." (Eſſay I. p. 173. 8vo.) "The poſſibility of believing "force is nothing more than the poſſibility "of believing, that every effect has a cauſe, "though that cauſe be unknown to us; the diſparity

" diſparity and impropriety of comparing it " with grace do not ariſe from our having no " idea of grace, for we have none of force; " but they ariſe from hence, that there is not " the ſame poſſibility of believing the exiſt- " ence of a cauſe, whereof we have no idea, " and which cannot be aſcertained by its ef- " fects, as there is of believing one whereof " we have no idea indeed, but whoſe exiſt- " ence may be aſcertained by its effects."

1025. The efficacy of prayer, to which both reaſon and revelation oblige us to have recourſe, may in my opinion be eaſily explained in the following manner.

1026. We muſt ſuppoſe the whole courſe of events, from the origin of things to their final determination, to be connected with and depend on the operation of the ſet of occaſional cauſes that were firſt put in action, and their operation to be ſo conducted as to produce that ſeries of ſubſequent events that were and are either ordained or permitted and effected, in conſequence of the choice of the human will; and that theſe events were originally ſo planned, as to harmonize with the prayers of the

the faithful, if their requeſts were conſiſtent with the greater good of the whole.

1072. This will appear more plainly, in explaining the difficulties propoſed by Dr. Fiddes: "if (ſays he) one ſhould pray to be "delivered from ſome infectious diſtemper, "the vapour whereby it is propagated will "nevertheleſs follow its natural courſe." True, but the preceding ſeries of cauſes productive of its natural courſe, may, from regard to the foreſeen prayer, be different from what they otherwiſe might be; and conſequently the courſe of the vapour, though ſtill natural, may be ſuch as to coincide with the requeſt of the prayer.

1082. Again he adds, "ſhould a man in "the heat of battle pray for protection from "the inſtruments of death, which fly every "where about him, yet a ball from a cannon "or muſket, will neceſſarily purſue the line "of its direction; it depends however on "the choice of man, whether he will give it "ſuch particular direction, as by its natural "tendency will take away the life of the per-"ſon who deprecates the danger, and in this

"caſe

" caſe (he thinks) it is impoſſible, upon any " foreſight of his prayer, that the order of " cauſes, that are in themſelves arbitrary, and " of uncertain determination, ſhould be diſ- " poſed in ſuch a manner as ſhould certainly " produce the effect deſired of them."

But this is a miſtake; arbitrary cauſes are not of *uncertain* determination; what their future determination will be, is foreſeen with certainty; ſee N° 955, &c.: and from the foreknowledge of the prayer, the original arrangement may be that in which a different determination of the direction of the bullet, or a different poſition of the perſon praying from the line of its direction, may take place.

1029. But it is ſaid, we ſhould never pray for miracles; thus we never pray for the reſtoration of a dead man to life. Now, the abatement of a ſtorm, or the recovery of a ſick perſon, are as truly miraculous as the reſtoration of a dead man to life, therefore prayers for ſuch events are equally fruitleſs. This is a fallacious argument; for no natural cauſe can effect reſtoration to life; whereas many can effect an abatement of a ſtorm,

ſtorm, or the recovery of a ſick man. The firſt would be miraculous, the latter not, unleſs inſtantaneous, as thoſe recorded in our ſacred books.

1030. Particular interpoſitions of the Supreme Being, by deviations from the eſtabliſhed courſe of nature, frequently occur in the books of the Old and New Teſtament; but all were viſible, all tended to effect purpoſes which could not be well anſwered without them.

1031. That famine, peſtilence, and earthquakes, are ordered for the puniſhment of cities or countries, ſeems to me a great miſtake, and evidently refuted Luke xiii. 1, 2: ſuch events commonly ariſe from natural cauſes, and have very rarely been miraculous; as the deluge, and poſſibly the deſtruction of Sodom and Gomorrah. The deſtruction of Jeruſalem was in no reſpect miraculous.

1032. The conduct of Providence, with reſpect to individuals, and in reſpect to ſtates, is very different. It frequently allows the moſt undeſerving individuals to enjoy, at leaſt apparently, the moſt enviable proſperity; for as their exiſtence is not confined to this life, they

may meet with due puniſhment in the next; but it is otherwiſe of ſtates, for as they do not ſurvive this life, they meet with the reward of their virtues, and the puniſhments of their vices, or crimes, in the preſent ſtate of their exiſtence. Evident traces of theſe diſpenſations of providence occur in the hiſtories of Perſia, Greece, Rome, &c.

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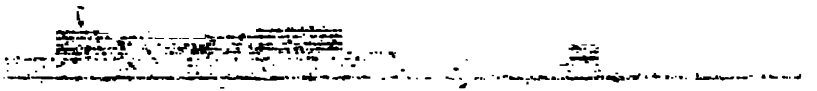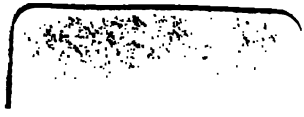
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